

MODERNISATION FUND
Accelerating the transition to climate neutrality

MODERNISATION FUND

REPUBLIC OF CROATIA

Annual report 2021



REPUBLIC of CROATIA
Ministry of Economy and
Sustainable Development

INTRODUCTION

The Modernisation Fund operates under the responsibility of the beneficiary Member States in close cooperation with the European Commission (EC) and the European Investment Bank (EIB) in accordance to Commission Implementing Regulation EU 2020/1001 of 9 July 2020 laying down detailed rules for the application of Directive 2003/87/EC (EU ETS Directive).

The Ministry of Economy and Sustainable Development, specifically, its Climate Change department and Energy department, (hereinafter: MESD) is responsible for the implementation of activities related to the Modernisation Fund in Croatia, as it is specified in the Act on Climate Change and Ozone Protection (OG 127/2019), together with the Environmental Protection and Energy Efficiency Fund (henceforth: EPEEF) responsible for the receiving funds from European Investment Bank (EIB).

The setup of the Modernisation Fund in Republic of Croatia was assisted through project "Support to Implementation of New Financial Mechanisms Under the Revised EU ETS Directive for Period 2021 – 2030" funded by the European Union via the Structural Reform Support Programme and implemented by PricewaterhouseCoopers, in cooperation with the European Commission's Directorate General for Reform Support (DG REFORM) up to October 2021.

The Modernisation Fund is funded from revenues of auctioning of 2% of the total allowances for 2021-30 under the EU Emissions Trading System (EU ETS) with additional allowances transferred by Republic of Croatia (transfer in accordance with Article 10c of EU ETS Directive), resulting in 3.14% share of the Modernisation Fund and 14 633 114 total allowances for Republic of Croatia.

In accordance with Implementing Regulation (EU) 2020/1001 this Annual report provides an overview of the investment activities of the Modernisation Fund in 2021, the first year of implementation. The Annual Report will be prepared by the MESD for each year of operation of the Modernisation Fund until 2030.

1. Overview of investments

In September 2021 the MESD submitted the investment proposal 'Energy efficiency improvement and generation of electricity from renewable sources of the Dilj production installations' (hereinafter: MF 2021-2 HR 0-002) as a priority investment. The scope of the investment MF 2021-2 HR 0-002 is increasing energy efficiency, as well as production and usage of renewable electric energy through photovoltaic installed on the roofs of two EU ETS installations Dilj- Vinkovci (1,32 MW) and Dilj- Našice (0,99 MW) operated by Dilj Ltd. The activities included in the scope of investment are stated under Article 10d (2) of the Directive 2003/87/EC. The investment is also consistent with the objectives of the Directive 2003/87/EC, as well as the objectives of the Union's 2030 climate and energy policy framework and the long-term objectives as expressed in the Paris Agreement.

Furthermore, for the investment MF 2021-2 HR 0-002 the MESD received confirmation by the EIB on October 11th,2021, the Commission decision on December 6th,2021 and revenues for confirmed investment was transmitted from EIB to the Environmental Protection and Energy Efficiency Fund account in December 2021. The investment MF 2021-2 HR 0-002 is on-going up to 2024, and therefore in 2021 there was no completed or discontinued investments.

In second disbursement circle 2021, the MESD also submitted priority investment proposal "Virtual network of smart energy storage" (MF 2021-2 HR 0-001) for project proponent IE ENERGY d.o.o. (Ltd) which was returned by the EIB for further justification and awaiting for confirmation of compliance with state aid rules.

In 2021 the MESD submitted proposals only for priority investments so the overall ratio of the financing provided is 100% to priority investments.

Table 1. Overview of investments in 2021

	Modernization fund Investments in 2021	Number	Reference
1.1.	financed investments	1	MF-2021-2-HR-0-002
1.2.	on - going investments	1	MF-2021-2-HR-0-002
	completed investments	0	n.a.
	discontinued investments	0	n.a.
1.3.	Overall ratio of the financing (priority against non-priority investments)	100%	MF-2021-2-HR-0-002

In last quarter of 2021 Public Call for Expressions of Interest was published with a total of 135 eligible project proposal submitted, out of which 65 % of project proposals referred to generation and use of renewable energy sources and 35 % of project proposals referred to energy efficiency.

Based on results from the Public Call, in last quarter of 2021 the MESD was preparing two priority investment proposals as schemes for improvement of energy efficiency and for generation and use of renewable energy sources in manufacturing industry respectively. The investment proposals were planned for submitting in first disbursement cycle in 2022, in total amount of 80 M EUR from the Modernisation Fund.

2. Information on each investment

In 2021 the MESD is overseeing implementation of only one investment, the MF 2021-2 HR 0-002 priority investment that is implemented by Dilj d.o.o. (Ltd). The information given within this section of report is referenced only to the abovementioned investment.

2.1. Total investment triggered (total investment costs)

Total investment cost for investment MF 2021-2 HR 0-002 without VAT is EUR 4,364,344, and with VAT EUR 5,455,430.

Aid for investment in energy efficiency measures are in accordance with Article 38 of Regulation No 651/2014¹ amounts to EUR 920,004, and for investment in the promotion of energy from renewable sources in accordance with Article 41 of Regulation No 651/2014 amounts to EUR 1,238,734. Total eligible cost is EUR 4,109,010 and support based on the State aid decision is EUR 2,158,7387,93

The MESD has confirmed that total amount requested from the Modernisation Fund and other Union and national instruments (total State aid) does not exceed the amount and percentage allowed by the State aid decision published on the web page of the MESD.

2.2. Dates and amounts of payments from the Modernisation Fund to the project proponent or the scheme managing authority;

In the 2021 project proponent Dilj d.o.o. (Ltd) has not received any funds from the Modernisation fund for confirmed investment MF 2021-2 HR 0-002.

2.3. Amounts received from the Modernisation Fund by the beneficiary Member State but not yet paid to the project proponent or the scheme managing authority

In the second disbursement cycle of 2021, following a disbursement decision taken by the Commission on December 6th, 2021 the EIB made payment in amount of EUR 2,158,737.93 for confirmed investment MF 2021-2 HR 0-002 to the Environmental Protection and Energy Efficiency Fund account.

The funds for confirmed investment MF 2021-2 HR 0-002 are held at the account of the Environmental Protection and Energy Efficiency Fund. First disbursement of funds to the project proponent is expected in 2nd half of 2022 in accordance with Contract on co-financing the project MF 2021-2 HR 0-002. Overview of the financial plan for the project MF 2021-2 HR 0-002 is shown in the appendix as documentary evidence of the financing of the investment as stated in Article 13(2) a of the Implemented Regulation (EU) 2020/1001 and the annual financial statement in respect of each investment.

2.4. Any amounts recovered by the beneficiary Member State from the project proponent or the scheme managing authority, and the dates of recovery;

In 2021 there was no recovered amounts from project proponent for confirmed investment MF 2021-2 HR 0-002.

¹ Consolidated text: Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty (Text with EEA relevance)Text with EEA relevance (OJ L 187/2014, L 156/17, L 215/2020, L 89/2021, L 270/2021)

2.5. An assessment of the added value of the investment in terms of energy efficiency and modernisation of the energy system, including information on the following:

- (a) the energy saved in MWh;
- (b) expected cumulative MWh saved by the end of the investment lifetime;
- (c) the greenhouse gas emissions saved in tCO₂;
- (d) expected cumulative tCO₂ saved by the end of the investment lifetime;
- (e) the additional renewable energy capacity installed, if applicable;
- (f) achieved leverage of funds (total amount invested in relation to the contribution from the Modernisation Fund);

The investment MF 2021-2 HR 0-002 is on-going and the entry into operation is expected in first quarter of 2024, and therefore in 2021 there was no added value of the investment from Modernisation fund.

As indicated in Investment proposal for priority investment MF 2021-2 HR 0-002 from September 13, 2021 a short and medium-term results/impacts are: reduced energy needs for production installation, reduced greenhouse gas emission, reduced maintenance cost, and percentage of damaged block bricks. Long-term benefits of this project will enable the preparation of new projects for syngas and hydrogen usage which contribute to the climate neutrality goal.

Table 2. The planned effects of the project MF 2021-2 HR 0-002

MF 2021-2 HR 0-002	PLANNED			ACHIEVED IN 2021		
	RES	EE	TOTAL	RES	EE	TOTAL
Energy savings (MWh/year)	3.122	5.616	8.737	0	0	0
Expected cumulative MWh saved by the end of the investment lifetime	57.906	71.850	129.756	0	0	0
GHG saved (tCO ₂ /year)	1.030	1.508	2.538	0	0	0
Expected cumulative tCO ₂ saved by the end of the investment lifetime	19.109	19.210	38.319	0	0	0
Additional RES capacity installed (kW)	2.310	n/p	2.310	0	n/p	0
Leverage of funds (%)	1,79	2,34	2,02	0	0	0

These results will also contribute to national targets defined in the Integrated National Energy and Climate Plan for the Republic of Croatia for the period 2021-2030 (NECP)², Low carbon development strategy of the Republic of Croatia until 2030 with a view to 2050 (OG 63/2021) and in line with approved Recovery and Resilience Plan for Croatia³. One of the essential goals of Croatia's energy policy is to increase the share of renewable energy sources in energy consumption. NECP defines Indicative national targets for the shares of renewable energy sources until 2030 (Table 3).

² [Integrated National Energy and Climate Plan for the Republic of Croatia for the period 2021-2030](#)

³ [Recovery and Resilience Plan for Croatia](#)

Table 3. Indicative national targets for the shares of renewable energy sources for the Republic of Croatia (NECP)

RES Share	2030 Target
Gross final energy consumption	36,6 %
Gross final electricity consumption	63,8 %
Gross final energy consumption in heating and cooling	36,6 %
Final energy consumption in transport	14,0 %

The Ministry is in the process of updating national NECP with new target for gross finally energy consumption from RES that will be above 39%.

One of the essential goals of Croatia's energy policy is to increase energy efficiency and the national targets by 2030 are shown in Table 4.

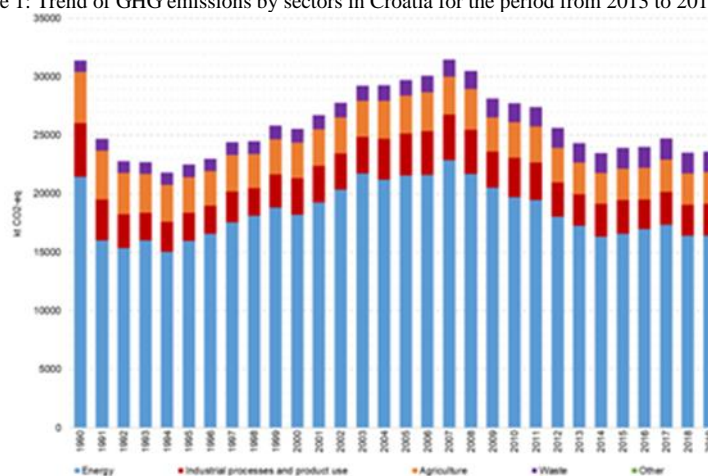
Table 4. Indicative national targets for the energy efficiency increase for the Republic of Croatia (NECP)

Targets 2030	PJ	Mten
Primary energy consumption	344.38	8.23
Final energy consumption	286.91	6.85

The specified target of cumulative energy savings in the amount of 2,993.7 ktoe (125.3 PJ) is calculated in accordance with Article 7(1), item (b) of Directive 2018/2002.

Renewable energy sources (RES), along with energy efficiency (EE) are the main foundations of energy security, sustainable energy and climate change mitigation. The main cause of global climate change is greenhouse gas emissions (GHG), and energy participates in very large share – in 2019 the largest contribution to the GHGs emission in Croatia has the Energy sector with 69.6 %, (Figure 1). Therefore, energy development is aimed at reducing GHGs faster by expanding RES and EE. According the current Effort Sharing Regulation⁴ GHG target for Republic of Croatia is -7% in 2030 in relation to their 2005 levels. Within the new package "Fit to 55" and the amendment of the Effort Sharing Regulation⁵, the reduction GHG target for Croatia is increased to -16.7%.

Figure 1: Trend of GHG emissions by sectors in Croatia for the period from 1990 to 2019 (NIR 2021)



⁴ Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013

⁵ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Regulation (EU) 2018/842 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement

2.6. When the investment aims at implementation of a territorial just transition plan, information about the expected contribution of the investment to that plan.

It is not applicable for investment MF 2021-2 HR 0-002.

2.7. For schemes, the reporting data specified shall be presented in aggregated form.

It is not applicable for investment MF 2021-2 HR 0-002.

3. Additional information about investments other than schemes

In 2021 the MESD is overseeing implementation of only one investment, the MF 2021-2 HR 0-002 priority investment that is implemented by Dilj d.o.o. (Ltd). The information given within this section of report is referenced only to the abovementioned investment.

3.1. Milestones achieved since the previous annual report;

The investment MF 2021-2 HR 0-002 started in 2021 and procurement of goods, services and works is expected in 2022 which was prolonged due to activities described in the table 5.

Table 5. Activities in 2021 for the project Dilj

GENERAL MILESTONES		Date	Signed by		
1.	Decision on the implementation of activities related to the project "Energy efficiency improvement and generation of electricity from renewable sources of the Dilj production plants"	24.11.2021	MESD		
2.	Agreement between the MESD and the EPEEF for implementation of the project Dilj Ltd.	17.12.2021.	MESD	EPEEF	
3.	Decision on concluding the contract on co-financing the project "Energy efficiency improvement and generation of electricity from renewable sources of the Dilj production plants"	16.2.2022	EPEEF		
4.	Decision on granting consent to the Decision of the EPEEF for concluding a contract on co-financing the project with the company Dilj d.o.o. and the Ministry of Economy and Sustainable Development.	12.5.2022	Government of the Republic of Croatia		
5.	Contract on co-financing the project "Energy efficiency improvement and generation of electricity from renewable sources of the Dilj production plants"	To be signed	MESD	EPEEF	Dilj Ltd.

3.2. Expected entry into operation;

The investment MF 2021-2 HR 0-002 is on-going and the entry into operation is expected in first quarter of 2024. A description of the milestones to be reached until entry into operation and their respective timeline is indicated in the table 6.

Table 6. Milestones of the project Dilj Ltd.

PROJECT MILESTONES	LOCATION	MILESTONES								
		2022			2023		2024			
A1. Energy efficiency improvement										
Tunnel kiln cars replacement	Našice	Public procurement- contracting			Equipment delivery		Start of production			
Replacement of automation by implementation of robots	Našice									
Centralised vacuum production system	Vinkovci				Equipment delivery	Start of production				
Replacement of compressor	Našice Vinkovci									
Lighting modernisation	Našice Vinkovci	Contract signing	Equipment delivery	Completion of works	Start of operation					
Replacement of clay purificator with wet pan mill	Našice	Public procurement- contracting			Equipment delivery	Start of production				
Central monitoring system for energy consumption	Našice Vinkovci	Contract signing	Equipment delivery	Completion of works	Start of operation					
A2. Generation of electricity from renewable sources										
Construction works	Našice Vinkovci	Public procurement	Start of works	Completion of works	Start of operation					
Electrical works and equipment	Našice Vinkovci	Public procurement- contracting							Equipment delivery	
Obtaining of EOTRP + connection contract	Našice Vinkovci	Obtaining of EOTRP + contract							Grid connection	

3.3. Identified or expected delays in implementation;

There were no identified or expected delays in implementation of the investment MF 2021-2 HR 0-002 by the end of 2021.

However, due to the uncertainties following the Russian military invasion of Ukraine together with the disruptions in global supply chains the project proponent expect certain delays in supply and consequently implementation could be prolonged to 2024.

3.4. Identified or expected changes in eligible costs, technology applied or results of an investment.

There are no identified or expected changes in eligible cost technology applied or results of an investment MF 2021-2 HR 0-002 by the end of 2021.

4. Additional information about non-priority investment

In 2021 the MESD is overseeing implementation of only one investment, the MF 2021-2 HR 0-002 as priority investment, and therefore there are no information to provide regarding non-priority investment.

4.1. Confirmation of co-financing from private sources.

It is not applicable for 2021.