Working Group on Strategies and Review,
Fifty-seventh session, 21–24 May 2019

Provisional agenda item 6 (a)
Information sharing by Parties on the implementation of the Convention:
Good practices to strengthen the implementation of air pollution-related policies, strategies and measures

Background information and template for the submission of examples of good practices with regard to air pollution related policies, strategies and measures

I. Background

1. The Executive Body, at its thirty-sixth session, adopted decision 2016/3 on Improving the effectiveness of reporting on strategies, policies and other measures to implement obligations under the Convention and its Protocols. This decision stipulates that *"the period for reporting the information referred to in article 5, paragraph 1 (a), of the 1994 Protocol on Further Reductions of Sulphur Emissions, article 7, paragraph 1 (a), of the Protocol on Heavy Metals, article 9, paragraph 1 (a), of the Protocol on Persistent Organic Pollutants and article 7, paragraph 1 (a), of the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol) is* ***at least once every four years***". As per this decision, the Executive Body also *"invites States and organizations referred to in article 14, paragraph 1, of the Convention that are not Parties to these four Protocols to provide information on strategies, policies and measures to abate air pollution at the sessions of the Working Group on Strategies and Review."*

2. The present document provides background information on the obligations to report on strategies, policies and measures for the respective Protocols. The enclosed template has been developed to facilitate the submission by Parties of examples of and good practices with regard to different regulatory, voluntary, economic and other measures relating to air pollution in advance of WGSR's fifty-seventh session.

3. Delegations are invited to submit to the secretariat case studies/examples which could be of interest to other countries and thus to the policy discussion at the WGSR session. Parties that had not yet shared such information at the previous sessions of the Working Group are particularly invited to do so. An overview of the previous reporting at WGSR sessions since 2013 is available on the Convention website:
http://www.unece.org/environmental-policy/conventions/envlrtapwelcome/convention-bodies/working-group-on-strategies-and-review/strategies-and-policies-for-the-abatement-of-air-pollution.html

In order to facilitate the preparation of the policy discussion on the basis of the examples submitted, please send your examples to air_meetings@un.org by **15 April 2019.**

4. Examples could comprise, amongst others, economic measures such as financial incentives or disincentives (such as taxes, subsidies, set prices or caps/ceilings, payments, rebates), voluntary measures (such as voluntary agreements, programmes or contracts), regulatory or legislative measures or other measures (such as educational or informational measures). They can include policies, strategies and measures emanating from different sectors with positive effects on air pollution abatement (such as acts/laws on sustainable transport, sustainable agriculture/farming, energy, green building, biodiversity conservation and enhancement). A more detailed description of the implementation of your chosen policy, strategy or measure and related challenges and problems as well as solutions would be more useful than the presentation of many different examples. Furthermore, your examples could also be useful to other Parties even if they have not been successful by indicating why this was the case. You are thus also invited to submit experiences that cover such items as:

a) A measure that was less effective than you anticipated and why;
b) A measure that was actually more effective than you predicted;
c) A measure that had particular implementation challenges – what were they and how did you address them;
d) A measure that was either less expensive or more expensive than you had estimated. What caused the increased or decreased costs?
e) Goals that were set and were met by innovative strategies.

II. Obligations under the Protocols to the Convention to report on strategies, policies and measures

II.1 Reporting on strategies, policies and measures under the 1994 Sulphur, Heavy Metals, POPs and Gothenburg Protocols

7. In accordance with decision 2013/2 adopted by the Executive Body at its thirty-second session, *"the sessions of the Working Group on Strategies and Review shall be considered the format for reporting on strategies, policies, and measures referenced in Article 5.1 of the 1994 Sulphur Protocol, Article 7.2 of the Heavy Metals Protocol, Article 7.2 of the Protocol on POPs, and Article 7.2 of the Gothenburg Protocol". In accordance with decision 2016/3 adopted by the Executive Body at its thirty-sixth session, the period for reporting is at least once every four years.*

II.1.1 Reporting on strategies, policies and measures under the 1994 Sulphur and the Gothenburg Protocol

8. Article 4 of the 1994 Sulphur Protocol requires that *"[each] Party shall, in order to implement its obligations under article 2: (a) adopt national strategies, policies and programmes, no later than six months after the present Protocol enters into force for it; and (b) take and apply national measures to control and reduce its sulphur emissions".* Article 5 of the 1994 Sulphur Protocol on "Reporting" stipulates that *"each Party shall report, through the Executive Secretary of the Commission, to the Executive Body, on a periodic basis as determined by the Executive Body, information on: (a) the implementation of national strategies, policies, programmes and measures referred to in article 4, paragraph 1;[…] (c) the implementation of other obligations that it has entered into under the present Protocol, in conformity with a decision regarding format and content to be adopted by the Parties at a session of the Executive Body. The terms of this decision shall be reviewed as necessary to identify any additional elements regarding the format and/or content of the information that are to be included in the reports".*

9. The 1994 Sulphur Protocol sets emission ceilings for 2005 and 2010 for some Parties. With the exception of Austria, Greece, Ireland, Italy, Liechtenstein and Monaco, all Parties to the 1994 Sulphur Protocol have also ratified or acceded to the 1999 Gothenburg Protocol which sets ceilings for 2010.

10. Article 6 of the Gothenburg Protocol stipulates that *"each Party shall, as necessary and on the basis of sound scientific and economic criteria, in order to facilitate the implementation of its obligations under article 3: (a) adopt supporting strategies, policies and programmes without undue delay after the present Protocol enters into force for it;[…]"* Paragraph 1 of Article 7 on "Reporting" stipulates that *"subject to its laws and regulations and in accordance with its obligations under the present Protocol: (a) each*

Party shall report, through the Executive Secretary of the Commission, to the Executive Body, on a periodic basis as determined by the Parties at a session of the Executive Body, information on the measures that it has taken to implement the present Protocol". Paragraph 2 stipulates that *"the information to be reported in accordance with paragraph 1 (a) shall be in conformity with a decision regarding format and content to be adopted by the Parties at a session of the Executive Body. The terms of this decision shall be reviewed as necessary to identify any additional elements regarding the format or the content of the information that is to be included in the reports."*

11. In 2012, amendments to the Gothenburg Protocol and its annexes were adopted by decisions 2012/1, 2012/2 and 2012/3. In addition, Parties adopted decision 2012/4 on the Provisional application of the amendments to the Protocol, which enables Parties to make use of the adjustment procedure under decision 2012/3 immediately.

12. Sulphur as a pollutant is covered by both the Gothenburg Protocol and the 1994 Sulphur Protocol. Moreover, the following pollutants are covered by the Gothenburg Protocol: nitrogen oxides (NOx), ammonia (NH3) and volatile organic compounds (VOC).

13. In accordance with Decision 2013/2, Parties to the 1994 Sulphur and Gothenburg Protocol are thus invited to report on the design and implementation of strategies, policies and measures to implement obligations under the 1994 Sulphur Protocol and the Gothenburg Protocol, notably to abate pollution of sulphur, nitrogen oxides, ammonia and volatile organic compounds.

II.1.2 Reporting on strategies, policies and measures under the Protocol on Persistent Organic Pollutants (Protocol on POPs)

14. Article 7 of the Protocol on POPs requires that each Party shall, no later than six months after the date on which this Protocol enters into force for it, develop strategies, policies and programmes in order to discharge its obligations under the present Protocol. Article 9, paragraph 1 of the Protocol on POPs on "Reporting" stipulates *that "subject to its laws governing the confidentiality of commercial information: (a) each Party shall report, through the Executive Secretary of the Commission, to the Executive Body, on a periodic basis as determined by the Parties meeting within the Executive Body, information on the measures that it has taken to implement the present Protocol"*. Furthermore, paragraph 2 of article 9 stipulates that *"the information to be reported in accordance with paragraph 1 (a) above shall be in conformity with a decision regarding format and content to be adopted by the Parties at a session of the Executive Body. The terms of this decision shall be reviewed as necessary to identify any additional elements regarding the format or the content of the information that is to be included in the reports."*

15. In 2009, amendments to the Protocol on POPs were adopted through decisions 2009/1, 2009/2 and 2009.

16. The pollutants covered by the Protocol on POPs are the following: polycyclic aromatic hydrocarbons (PAH), hexachlorobenzene (HCB), and dioxins/furans.

17. In accordance with decision 2013/2, Parties to the Protocol on POPs are thus invited to report at the WGSR session on the design and implementation of strategies, policies, and measures employed to implement obligations under the Protocol on POPs, notably to reduce emissions of PAH, HCB and dioxins/furans.

II.1.3 Reporting on strategies, policies and measures under the Protocol on Heavy Metals

18. Article 5 of the Protocol on Heavy Metals stipulates "*each Party shall develop, without undue delay, strategies, policies and programmes to discharge its obligations under the present Protocol."* Paragraph 1 of Article 7 on "Reporting" requires that *"subject to its laws governing the confidentiality of commercial information: (a) each Party shall report, through the Executive Secretary of the Commission, to the Executive Body, on a periodic basis as determined by the Parties meeting within the Executive Body, information on the measures that it has taken to implement the present Protocol".* Paragraph 2 stipulates that "*the information to be reported in accordance with paragraph 1 (a) above shall be in conformity with a decision regarding format and content to be adopted by the Parties at a session of the Executive Body. The terms of this decision shall be reviewed as necessary to identify any additional elements regarding the format or the content of the information that is to be included in the reports."*

19. In 2012, amendments to the Protocol and its annexes were adopted by decisions 2012/5 and 2012/6.

20. The pollutants covered by the Protocol on Heavy Metals are cadmium, lead and mercury.

21. In accordance with decision 2013/2, Parties to the Protocol on Heavy Metals are invited to report at the WGSR session on the design and implementation of strategies, policies, and measures employed to implement obligations under the Protocol on Heavy Metals, notably to reduce emission of mercury, lead and cadmium.

II.2 Reporting on strategies, policies and measures by Parties to the Protocol concerning the control of Nitrogen Oxides or their transboundary fluxes (Protocol on NOx) and the Protocol concerning the control of emissions of Volatile Organic Compounds and their transboundary fluxes (Protocol on VOC)

22. In accordance with decision 2013/2, *"Parties to the Protocol on NOx and the Protocol on VOC may utilize the time set aside during the annual session of the Working Group on Strategies and Review to report on changes or revisions to their policies, strategies, and measures to implement obligations under the respective Protocols in satisfaction of their obligations under Article 8.1 of the Protocol on NOx and Article 8.2 of the Protocol on VOC".*

23. Article 7 of the 1988 Protocol on NOx stipulates that *"Parties shall develop without undue delay national programmes, policies and strategies to implement the obligations under the present Protocol that shall serve as a means of controlling and reducing emissions of nitrogen oxides or their transboundary fluxes."* Article 8 requires that *"Parties shall exchange information by notifying the Executive Body of the national programmes, policies and strategies that they develop in accordance with article 7 and by reporting to it annually on progress achieved under, and any changes to, those programmes, policies and strategies, […]"* Paragraph 2 of article 8 stipulates that *"such information shall, as far as possible, be submitted in accordance with a uniform reporting framework."*

24. Article 7 of the 1991 Protocol on VOC stipulates that *"Parties shall develop without undue delay national programmes, policies and strategies to implement the obligations under the present Protocol that shall serve as a means of controlling and reducing emissions of VOCs or their transboundary fluxes."* Article 8 on "Information exchange and annual reporting" provides that "*Parties shall exchange information by notifying the Executive Body of the national programmes, policies and strategies that they develop in accordance with article 7, and by reporting to it progress achieved under, and any changes to, those programmes, policies and strategies [….]"* Paragraph 4 of article 8 stipulates that *"such information shall, as far as possible, be submitted in accordance with a uniform reporting framework".*

25. The majority of the Parties to the NOx and VOC Protocols are also Parties to the Gothenburg Protocol, which covers the pollutants covered by the NOx and VOC Protocols. Parties to the NOx Protocol that are not Parties to the Gothenburg Protocol are the following: Albania, Austria, Belarus, Estonia, Greece, Ireland, Italy, Liechtenstein, Russian Federation, Ukraine. Parties to the VOC Protocol not Parties to the Gothenburg Protocol are the following: Austria, Estonia, Italy, Monaco, Liechtenstein. In accordance with decision 2013/2, the Parties listed above may wish to consider reporting on changes or revisions to their policies, strategies, and measures to implement obligations under the respective NOx or VOC Protocols.

26. As it is not possible to cover all the above issues in one meeting, Parties are invited to inform the secretariat of the information they may wish to provide on a particular measure at the WGSR session, by submitting the enclosed template **by 15 April 2019** by writing to air_meetings@un.org**.** The priority for presentations would be given to Parties that have not shared their experience during last WSGR sessions and to Parties that would submit their inputs by the indicated deadline, taking due account of the available time.

III. Template to facilitate the submission of examples/good practices of strategies, policies and measures employed to implement obligations under any of the protocols to the Convention on Long-range Transboundary Air Pollution

<table>
<tr><td>Country:
Republic of Croatia</td><td>Pollutant(s):
SO_X, NO_X, HM, O_3, VOCs, POPs, NH_3, PM</td></tr>
<tr><td>Protocol(s):
• The 1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol)
• The 1998 Protocol on Heavy Metals
• 1985 Protocol on the Reduction of Sulphur Emissions or their Transboundary Fluxes by at least 30 per cent
• The 1988 Protocol concerning the control of emissions of nitrogen oxides or their trans boundary fluxes
• The 1994 Protocol on further reduction of sulphur emissions</td><td>Sector:
Multi sector</td></tr>
<tr><td>Type of strategy, policy or measure and the level of implementation:

Improvement of Air Quality Monitoring and Management System:
1. Project AIRQ - Upgrade and modernisation of the State Air Quality Monitoring Network
2. Air Quality Portal
3. Air Quality Plans from Art. 23 of Directive 2008/50/EC

Improvement of Emission Data/Inventory:
4. Spatial Distribution Portal - Spatial gridding of emissions in EMEP grid 0.1° x 0.1°
5. Project NRL: National reference laboratory for emission measurements from non-road mobile machinery
6. Portal on Fuel quality at petrol stations and terminals</td><td>Method used for the current analysis:

Environmental Protection Information System
Structural Funds Grant Schemes
National Emission Inventory
State Air Quality Monitoring Network</td></tr>
<tr><td colspan="2">What is the main objective of the strategy, policy or measure? When has it been implemented/or will be implemented?

1. Project AIRQ - Upgrade and modernisation of the state Air Quality Monitoring Network – Implementation of Directive 2008/50/EC; the result of the implementation of the measure will be increased coverage of the population of the state with Air Quality Data
2. Air Quality Portal: To ensure public awareness and availability of real-time and validated data, reports, input data for drafting Air Quality Plans that include measures to improve Air Quality
3. Air Quality Plans from Art. 23 of 2008/50/EC Directive: To establish list of measures aiming to achieve limit/target values</td></tr>
</table>

4. Spatial Distribution Portal- Spatial gridding of emissions in EMEP grid 0.1° x 0.1°: To provide tools for identification of priority sectors for emission reductions
5. Project NRL: National reference laboratory for emission measurements from non-road mobile machinery - The main objective of the project is to establish a National Reference Laboratory for measuring and controlling emissions from the internal combustion engines of non-road mobile machinery and to contribute to improvement of emission data
6. Portal on Fuel quality at Petrol stations and terminals: to gather relevant data on quality of fuel; to contribute to improvement of emission data

Background and driving forces:

The main goal of the indicated measures 1 – 6 is the implementation of EU obligations related to Air Quality and Emissions and Quality of Products.

Description of the strategy, policy or measure:

Improvement of Air Quality Monitoring and Management System

1. **Project AIRQ - Upgrade and modernisation of the state Air Quality Monitoring Network**

We regularly review important elements of Ambient Air Quality Directive 2008/50/EC that were transposed into the national legislation and continuously use them as a basis for further upgrade of the management and monitoring system. The grant contract was concluded in September 2017 for the new strategic project „Upgrade and modernisation of the state air quality monitoring network - AIRQ" within the framework of the Operational Programme "Competitiveness and Cohesion 2014-2020". The project implementation will allow the compliance with the minimum number of sampling points for fixed measurements and equipment will be modernised. Within the AIRQ project two EMEP Level 1 and one EMEP Level 2 stations will be set. The Short-lived climate pollutants measurement Programme will be established and the new air quality modelling system for ozone and ozone precursors respectively.

2. **Air Quality Portal :**

The portal was developed aiming to establish national air quality database and to provide platform for annual reporting and exchange of air quality data from state and local network. The Portal gathers data from 52 automatic measuring stations (22 national and 30 local) and provides visualization of Air Quality Index and access to validated air quality data. The Portal was designed for Croatian air quality zones and agglomerations in accordance with EU reporting obligations (IPR).

3. **Air Quality Plans from Art. 23 of Directive:**

According to the national and EU legislation, if in any given zone or agglomeration exceedances of air pollution levels are reported, an action plan (Air Quality Plan) for improvement of the air quality has to be adopted by local self-governance authority (City) in order to ensure the achievement of limit or target values, as soon as possible. In the period from 2013-2018, in total seven out of nine (expected) air quality plans were adopted by local self-governance authorities and submitted to EEA/EC.

Improvement of Emission Data/Inventory

4. **Spatial Distribution Portal- Spatial gridding of emissions for 5 AQ zones in EMEP grid 0.1° x 0.1°**

In 2018, the spatial gridding of emissions in resolution 0.1° x 0.1° was undertaken. It consists of emissions by GNFR, NFR and SNAP for 1990, 1995, 2000, 2010, 2014 and 2015; it was designed using top-down/bottom-up methodology. Spatial Distribution Portal provides help in detection of priority sectors for emission reductions. Furthermore, it includes spatial gridding of emissions for 5 air quality agglomerations (urban level) in enhanced resolution grid for 0.5 km x 0.5 km, allowing detection of hot spots in urban agglomerations. The Portal also provides quantitative and visual emission reduction achievements by sector and facilitate format for reporting of national gridded data by GNFR sectors to the LRTAP Convention and NEC Directive.

5. **Project NRL: National reference laboratory for emission measurements from non-road mobile machinery**

The main objective of the project is to establish a National Reference Laboratory for measuring and controlling emissions from the internal combustion engine for non-road mobile machinery. The project is funded within the framework of the Operational Program "Competitiveness and Cohesion" for the period 2014-2020. The introduction of a monitoring mechanism and the establishing of emission inventories in the non-road mobile machinery sector will enable better definition of targeted measures to improve air quality. These measures should contribute to the emission reductions from the non-road mobile machinery sector.

6. **Portal „Fuel quality at Petrol stations and terminals":**

The Republic of Croatia established two Liquid Fuel Quality Monitoring Programs for determining Sulphur content and quality control:

- Quality Program of liquid petroleum fuels – it includes sampling and analysis of petrol and diesel, heavy fuel oil, gas oil and marine fuels in terminals
- Quality monitoring of marine fuels – it includes sampling and analysis of marine fuels which are used on-board

The Program was adopted based on Fuel Quality Directive 1998/70/EC and Sulphur Directive EU 2016/802 which have been transposed in the national legislation. Within two indicated Programs 600 analyses per year were implemented. In addition The Republic of Croatia has established the Monitoring Program for control of emissions of volatile organic compounds during storage and filling at petrol stations and terminals based on Directives 94/63/EC and 2009/126/EC (Phases I and II). The Republic of Croatia established the National Fuel Quality Portal as a part of the environmental information system where annual reports by the type of fuels and the results of analysis are made available to the interested public. This database is also used for the reporting to the EEA according to the EU obligations of the Republic of Croatia.

In the future, The Republic of Croatia plans to establish new Program for liquefied petroleum gases (LPG) and the results of the analysis will also be available through the Portal.

Costs, Funding and Revenue allocation:

1. **Project AIRQ - Upgrade and modernisation of the state Air Quality Monitoring Network -** total project budget: EUR 16.5 mil. - by the end of 2021 from the ERDF funds along with national co-financing 15%
2. **Air Quality Portal : N/A**
3. **Air Quality Plans from Art. 23 of Directive: -** approximately EUR 20.000 for action plan drafting as administrative cost, plus implementation cost of specific measures which are not available at this time – in the future period it is planned to improve monitoring of air quality plans implementation
4. **Spatial Distribution Portal- Spatial gridding of emissions in EMEP grid 0.1° x 0.1° -** aprox. EUR 800.000
5. **Project NRL: National reference laboratory for emission measurements from non-road mobile machinery** - the total budget of the project is EUR 7.6 million (the national co-financing share is 15%).
6. **Portal „Fuel quality at Petrol stations and terminals": -** 250.000 EUR for 600 analysis per year.

Effect and impacts on air pollution abatement:

The above-mentioned measures 1–6, are expected to have positive effects and impact on improvement of air quality abatement policy, by improvement air quality monitoring and management system and emission data. It will also improve our transposition, compliance and implementation in a line with EU and LRTAP obligations.

References/Further information:

Project AIRQ - Upgrade and modernisation of the state Air Quality Monitoring Network – Implementation of Directive 2008/50/EC:
https://meteo.hr/istrazivanje.php?section=projekti&param=projekti_u_tijeku&el=airq

Air Quality Portal: http://iszz.azo.hr/iskzl/index.html

Air Quality Plans from Art. 23 of 2008/50/EC Directive: http://iszz.azo.hr/iskzl/index.html
Spatial Distribution Portal- Spatial gridding of emissions for 5 AQ zones in EMEP grid 0.1° x 0.1°: https://emep.haop.hr/

Project NRL: National reference laboratory for emission measurements from non-road mobile machinery: https://nrle.fsb.hr/hr/6/Kratki+opis+projekta

National Fuel Quality Portal: http://iszz.azo.hr/kago/

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Additional comments: *Please include any additional information you may wish to provide here.*

Country: Republic of Croatia	**Pollutant(s):** SO_X, NO_X, HM, O_3, VOCs, POPs, NH_3, PM
Protocol(s): • The 1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol) • The 1998 Protocol on Heavy Metals • 1985 Protocol on the Reduction of Sulphur Emissions or their Transboundary Fluxes by at least 30 per cent • The 1988 protocol concerning the control of emissions of nitrogen oxides or their trans boundary fluxes • The 1994 protocol on further reduction of sulphur emissions	**Sector:** Multi sector
Type of strategy, policy or measure and the level of implementation: **Initial National Air Pollution Control Programme (NAPCP) from Article 6(1) of Directive 2016/2284/EU**	**Method used for the current analysis:** Air Pollution Policy

Background and driving forces:

Directive 2016/2284/EU requires the adoption of the initial NAPCP and the emission reduction measures. On an EU level, Member States have committed to reduce anthropogenic air pollution emissions with environment and human health in mind. Pursuant to Article 6 of the NECD the Member States shall draw up, adopt and implement their respective national air pollution control programmes, as has been transposed also into the national legislation.

Description of the strategy, policy or measure:

The first draft of the NAPCP was prepared in the second quarter of 2018 with intention to be adopted by the 1 April 2019. However the delay occurred owing to the need for revision and harmonization with the first draft of the Integrated Energy and Climate Plan of the Republic of Croatia for the period 2021-2030, which was completed in December 2018. The draft document of the initial NAPCP is considered as an advanced version of the document since it is the result of the preliminary consultation procedure with the main competent sectoral authorities that was completed at the beginning of March 2019. The intention was to cover multiple sectors such as climate, energy, agriculture, industry and transport by using common format. Policies and measures of NAPCP focus around energy efficiency of residential buildings, reduction of air pollution from transport in urban areas with impaired air quality, emission reductions from agriculture and cross-sectoral projects. The draft of the initial NAPCP envisage list of sectorial measures for adoption. As an additional measure, adoption of National Ammonia Code is planned.
The general scope of the initial NAPCP is to monitor three main implementation levels: Implementation; Monitoring of PaMs achievement; Compliance and Enforcement.

Costs, Funding and Revenue allocation:

NAPCP defines costs where possible, however due to the lack of input data it was not possible to create complete cost-benefit analysis. Through monitoring of the implementation, it will be possible to assess the costs of the implementation of the specific measures.

Effect and impacts on air pollution abatement:

Through implementation of the NAPCP, the Republic of Croatia shall achieve the goals (commitment projections) of NEC Directive. The projections (input data for the document) show that the implementation of policies and measures will meet the obligations set out by the NECD and the by the Amended Gothenburg Protocol.

References/Further information:

The draft NAPCP document has been published and will be in the public consultation procedure until 3 May 2019, accessible through the following link:
https://esavjetovanja.gov.hr/ECon/MainScreen?entityId=10587
Thus, Republic of Croatia will provide an update of the NAPCP as soon as the NAPCP is adopted by the Government, namely by the end of July 2019.

Contact: *Please insert your contact details below.*

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Additional comments: *Please include any additional information you may wish to provide here.*

Country: Republic of Croatia	**Pollutant(s):** SO_X, NO_X, HM, O_3, VOCs, POPs, NH_3, PM
Protocol(s): LRTAP Convention	**Sector:** Multi sector
Type of strategy, policy or measure and the level of implementation: 1. **Low Carbon Development Strategy** 2. **Energy Strategy** In 2017 Croatia prepared the Low Carbon Development Strategy for the period until 2030, with the view to 2050. In 2018, the draft of the Energy Development Strategy was prepared for the period until 2030, with the view to 2050. This two important strategies need to be harmonized in terms of reducing greenhouse gas emissions and low-carbon development and to enable balanced energy development. **The first draft of the Integrated Energy and Climate Plan of the Republic of Croatia** for the period 2021-2030 (prepared in December 2018) provides an overview of national targets for each of the five key dimensions of the Energy Union (decarbonisation, energy efficiency, energy security, internal energy market and research, innovation and competitiveness) and appropriate policies and measures to achieve these goals. The Integrated Plan follows the content and format as set out in the Governance of the Energy Union and Climate Action Regulation (EU) 2018/1999, regarding management of the energy union and climate policy. The process of setting out the Integrated Plan is complementary and builds on draft of above mentioned strategies.	**Method used for the current analysis:** National Climate Protection Policy Energy Development Policy
What is the main objective of the strategy, policy or measure? When has it been implemented/or will be implemented? The draft of the Energy Development Strategy for the period until 2030, with the view to 2050 covers security of supply and energy independence, integration into the single EU market, geopolitical aspects of the development of the Republic of Croatia, as well as alignment with EU directives on issues of reduction of consumption, reduction of greenhouse gas emissions, sustainability of energy development, competitiveness of the energy system, etc. Low Carbon Development Strategy for the period until 2030, with the view to 2050 will represent a comprehensive economic, development and environmental strategy that will encourage, through innovations and the transfer of advanced technologies and significant structural changes in all sectors, growth of industrial production, development of new businesses, economic competitiveness and job creation. The adoption of this two Strategies is foreseen by the end of 2019.	
Background and driving forces: EU and national legislation set up legal framework for drafting the Low-Carbon Development Strategy and the Action Plan for Strategy Implementation for a period of five years. The Republic of	

Croatia ensures reduction of greenhouse gas emissions on its territory through the implementation of the Low Carbon Development Strategy.

Description of the strategy, policy or measure:

Low-carbon strategy will represent a comprehensive economic, development and environmental strategy that will, through innovations, the transfer of advanced technologies and significant structural changes in all sectors encourage growth of industrial production, development of new businesses, economic competitiveness and job creation.
The goal is to reduce greenhouse gas emissions, protect the environment, promote economic development on the principles of sustainability, create opportunities for new jobs and guide society towards sustainable development.
The low-carbon strategy includes: scenarios by 2030 and 2050, modelling by sectors of energy, industry, transport, agriculture, forestry, waste and environmental impact assessment, society and economy as well as a five-year action plan.

Costs, Funding and Revenue allocation:

The largest sources of funding of the Greenhouse gases reduction measures are EU structural, investment funds, auctioning revenues, EU ETS Innovation, Modernization funds, and incentives for production of electricity from renewable energy sources.
For the monitoring of the Greenhouse gases reduction measures National system has been established ensuring preparation of the annual Greenhouse gases Inventory report, report on policies and measures and projections.

Effect and impacts on air pollution abatement:

Implementation of the Greenhouse gases reduction measures will also have positive impact on the air quality.

References/Further information:

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Additional comments: *Please include any additional information you may wish to provide here.*