

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-sixth session to be held in Geneva on 22-25 May 2018. Following the request of the Working Group at its fifty-fifth session, the template now includes information on respective pollutants and protocols and the method used for analysis.

3. Heads of Delegations and other participants in the fifty-sixth session of the Working Group on Strategies and Review 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/envlrapwelcome/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@unece.org](mailto:air_meetings@unece.org) by **16 April 2018**.

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 (NO<sub>x</sub>), ammonia (NH<sub>3</sub>) 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.1.1 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.1.1 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 WSGR session, by submitting the enclosed template **by 16 April 2018** by writing to [air\\_meetings@unece.org](mailto:air_meetings@unece.org). The priority for presentations would be given to Parties that have not yet shared their experience during previous WSGR sessions and to Parties that would submit their inputs by the indicated deadline, taking due account of the available time. Presentations could take place either under agenda item 5 a) Good practices to strengthen the implementation of air pollution-related policies, strategies and measures, or agenda item 5 b) Current policy issues: thematic session on residential wood combustion and air pollution.

**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**

<p><b>Country:</b></p> <p><b>United Kingdom</b></p>	<p><b>Pollutant(s):</b>  <i>Please indicate the pollutant(s), emissions of which are being controlled</i></p> <p><b>PM<sub>2.5</sub>, black carbon, SO<sub>x</sub>, VOCs, POPs, heavy metals.</b></p>
<p><b>Protocol(s):</b>  <i>Please indicate the name of the protocol(s) to the Convention, obligations under which are being fulfilled</i></p> <ul style="list-style-type: none"> <li>• <b>1991 Protocol concerning the Control of Emissions of Volatile Organic Compounds or their Transboundary Fluxes.</b></li> <li>• <b>1994 Protocol on Further Reduction of Sulphur Emissions.</b></li> <li>• <b>1998 Protocol on Persistent Organic Pollutants and its 2009 amended version.</b></li> <li>• <b>1998 Protocol on Heavy Metals and its 2012 amended version.</b></li> <li>• <b>1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone and its 2012 amended version (Gothenburg). (PM<sub>2.5</sub>, SO<sub>x</sub>, VOCs)</b></li> </ul>	<p><b>Sector:</b>  <i>Please indicate the sector (e.g. agriculture, industry, urban planning, environment, etc.), or sectors (if several) for which the strategy, policy or measure has been mainly designed</i></p> <p><b>Residential energy sector</b></p>
<p><b>Type of strategy, policy or measure and the level of implementation:</b>  <i>Please identify the type of strategy, policy or measure – economic e.g. incentive or disincentive (taxes, funds, subsidies, prices or caps/ceilings, payments, rebates, etc); voluntary (agreements, programmes, contracts), regulatory (legislation), or other measures (educational, informational, other)</i>  <i>Please state at which level (municipal, regional, sub-national, national) the policy, strategy or measure is targeted or implemented</i></p> <p><b>Regulation at a national level</b>  <b>Voluntary scheme with industry</b></p>	<p><b>Method used for the current analysis:</b>  <i>Please identify the method used for collecting information and the analysis made</i></p> <p><b>Through our National Atmospheric Emissions Inventory, we undertake an assessment of the extent of residential wood burning annually. We are supplementing this with ongoing primary research through a national survey of those who burn wood in order to better constrain our data. Additionally, we launched a call for evidence to gain more data in this area to analyse the impact of these measures.</b></p>
<p><b>What is the main objective of the strategy, policy or measure? When has it been implemented/or will be implemented?</b>  <i>Please describe briefly what the measure attempts to achieve or what has been the result of its implementation. Please also describe since when it is being employed or for when its implementation is foreseen. Please explain whether implementation is/was immediate or gradual.</i>  <i>[150 words max]</i></p>	

In the UK, the largest single source of primary emissions of PM<sub>2.5</sub> is residential burning. In order to work towards our emission reduction commitments under the Convention, we are taking action across a range of sectors to reduce emissions. We have begun taking action in the residential energy sector, working with industry to create a voluntary certification scheme and issuing a Call for Evidence, and initiating a programme of primary research, to build our evidence base in this area. The next step of our measures will be consulting on proposed regulation to ensure only wood fuel which is ready for use at the point of sale is available, subject to certain conditions. As part of the same package of measures, we are taking action on other residential solid fuels, such as coal and manufactured solid fuels.

Through these actions, we will reduce our emissions of PM<sub>2.5</sub>, black carbon, sulphur dioxide, volatile organic compounds, heavy metals and persistent organic pollutants.

This package of measures has started already with voluntary industry approaches and will be built upon with regulatory approaches implemented by 2020, subject to stakeholder consultation. This package of measures will form part of our forthcoming Clean Air Strategy, which will set out our plans for emission reductions forward to 2030.

**Background and driving forces:**

*Please explain briefly why this strategy, policy or measure was implemented; mention the driving forces for its introduction e.g. policy development, legislation (EU, national), action plans, voluntary, incentive, or other [150 words max]*

According to our latest analysis of our emissions inventory, the largest single source of primary PM<sub>2.5</sub> in the UK is residential combustion. Since 2005, levels of wood burning have been increasing. We have committed to reducing our emissions of PM<sub>2.5</sub> in line with the EU National Emissions Ceilings Directive and our commitments under the Convention. This package of measures will additionally deliver reductions in several other pollutants covered by Protocols to the Convention.

To meet emission reduction commitments, the UK needs to reduce emissions of PM<sub>2.5</sub> by 36% by 2020 (compared to 2005 levels) and 40% by 2030. Residential burning of solid fuel contributed 39% of all UK PM<sub>2.5</sub> emissions in 2015.

**Description of the strategy, policy or measure:**

*Please explain briefly how the strategy, policy or measure works and why it has been chosen compared to other policies/measures. Please also explain how its implementation is being monitored. [200 words max]*

The moisture content of wood is one of the main factors influencing the level of PM emissions from wood burning.

We studied the residential burning behaviour of the British public in 2015, which showed that much wood is burned with an inappropriately high moisture content. We have worked with stakeholders in the wood fuel industry to create a voluntary scheme, whereby wood fuel which has a moisture content of 20% or less is certified and badged as “Ready-to-Burn” so consumers know they can burn it immediately. This also reduces the amount of VOCs released when wet wood is burned.

We plan to consult on regulation so that all wood sold in volumes under 2m<sup>3</sup> has a moisture content lower than 20%. As part of the same legislative package, we will consult on controlling the quality of solid fuels manufactured from petroleum products, and phasing out coal. The fuel industry have told us that a drop in price of petroleum coke, a by-product of petroleum refining, has caused an increase in the use of high-sulphur petroleum coke in

residential solid fuel. Our measures for consultation will include regulation on the sulphur content of solid fuel to end this practice and reduce emissions of sulphur dioxide, as well as heavy metals and dioxins.

**Costs, Funding and Revenue allocation:**

*Please state how much the implementation of the measure costs including its monitoring and how it is funded (national budget, industry, taxes, etc.) If the measure is creating revenue, please also explain how this revenue is being allocated and collected. [200 words max]*

The cost of the certification and monitoring scheme will come from the industry. Estimated cost: £1.76m (in 2020).

The cost to businesses of familiarisation with and implementation of the measures is estimated to be: £1.3m (in 2020).

The measures will include a publicity campaign to raise awareness of the harm to health from burning solid fuels, and methods for burning which reduce emission. Estimated cost: £2m.

We do not anticipate that these measures will create revenue.

**Effect and impacts on air pollution abatement:**

*Please explain briefly the effect of the policy, strategy or measure and how it has impacted the abatement of air pollution. If impacts are known, please quantify, if possible. Please highlight also other effects of the implementation of the measure e.g. with regard to compliance, the acceptance of the measure or its transposition (e.g. from a voluntary to a regulatory or another type of measure). [150 words max]*

We estimate that these measures will reduce emissions of PM<sub>2.5</sub> by 13.7 kilotonnes in 2020 relative to a projected baseline and by 12.38 kilotonnes by 2030. The reason for the smaller reduction in 2030 is an expected decline in coal usage without Government intervention.

We have not quantified the reduction of emissions of other pollutants, because obtaining sufficiently certain data on the use of high-sulphur petroleum coke has not been possible within the timescales required.

In preparing for the implementation of this measure, we have had significant engagement with industry, and the public, both through our Call for Evidence and through stakeholder meetings. This has allowed us to accelerate action through an initial voluntary scheme supported by government.

**References/Further information:** *Please provide most relevant sources for information such as references for web links, books, other resources.*

Our Call for Evidence: [https://consult.defra.gov.uk/airquality/domestic-burning-of-wood-and-coal/supporting\\_documents/180116woodburningconsultevidencedoc\\_no10%20to%20defra%20%20bm%20004.pdf](https://consult.defra.gov.uk/airquality/domestic-burning-of-wood-and-coal/supporting_documents/180116woodburningconsultevidencedoc_no10%20to%20defra%20%20bm%20004.pdf)

Background documentation to the Call for Evidence:

[https://consult.defra.gov.uk/airquality/domestic-burning-of-wood-and-coal/supporting\\_documents/180129%20Evidence%20background%20documentation.pdf](https://consult.defra.gov.uk/airquality/domestic-burning-of-wood-and-coal/supporting_documents/180129%20Evidence%20background%20documentation.pdf)

Consumer guidance published by Defra for the industry to publicise:

[https://consult.defra.gov.uk/airquality/domestic-burning-of-wood-and-coal/supporting\\_documents/open%20fires%20wood%20burning%20stoves%20%20guideA4update12Oct.pdf](https://consult.defra.gov.uk/airquality/domestic-burning-of-wood-and-coal/supporting_documents/open%20fires%20wood%20burning%20stoves%20%20guideA4update12Oct.pdf)

**Ready-to-Burn website:** <https://www.readytoburn.org>

**Contact:** *Please insert your contact details below.*

**Name:** Brendan Mahon

**Country:** United Kingdom

**Organization:** Department for Environment, Food and Rural Affairs

**Address:** 17 Smith Square, London, SW1P 3JR

**Telephone:** +44 (0) 2085 654424

**Email:** [brendan.mahon@defra.gsi.gov.uk](mailto:brendan.mahon@defra.gsi.gov.uk)

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