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

Country:	Sector:
NORWAY	Urban environment - emissions of particulate matter (PM)
Type of strategy, policy or measure:	Level:
Economic incentive, fund	Municipal measure aimed at private home owners in the city of Oslo

# What is the main objective of the strategy, policy or measure? When has it been implemented/or will be implemented?

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. [150 words max]

To influence the exchange rate of old to new wood-burning stoves in Oslo. Implemented in 1998.

# **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]

Norway has a long tradition for using wood stoves for heating. The driving force behind the measure is: To reduce the emissions of particulate matter (PM) from wood stoves in private homes in Oslo.

Oslo is situated in a basin surrounded by hills up to 500 m above sea level. Emissions from various sources, i.a. wood burning for domestic heating, lead to large seasonal variations in air pollution levels. During winter, low wind speeds and strong inversions can lead to episodes of strongly enhanced air pollution.

# **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]

Private home owners can apply for a grant from Oslo's Climate and Energy Fund to remove their old wood stove and install a new one, with cleaner burning process. The grant per stove replaced is 3,000 NOK in the inner part of Oslo and 1,500 NOK in other parts of the city (2014). Wood stoves installed after 1 July 1998 must comply with a national standard that ensures efficient combustion and low emissions, achieved with the addition of an afterburner or a catalyst.

The grant can only be given after the application has been approved. The owner then has got one year to complete replacement of the old stove by a new one. After the new wood stove has been installed, and a completion report has been approved, the grant is paid to the owner. The implementation of the measure is monitored through the application and completion rapport process.

### **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 measure is funded by Oslo's Climate and Energy Fund. Over the last 3 years (2011-2013) an average of 3.5 MNOK a year have been approved as grants and 2 MNOK a year have been paid. Over this time period a total of 2,263 wood stoves have been replaced. During the years 1998-2010 the total grant amounted to 16 MNOK, leading to the replacement of a total of 5,862 stoves.

Oslo's Climate and Energy Fund was financed by a 0.01 NOK fee on every kWh of electricity sold in Oslo during a 10 year period from 1982 to 1992, and has since then been financed by interests from the fund and occasional budget transfers.

### 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]

It is estimated that a wood stove has a "lifetime" of 15 year and that the emissions of PM10 is reduced by 8 kg/stove/year when replacing an old stove by a new one. The measure has been in effect since 1998. It is estimated that annual PM10 emissions in Oslo is reduced by about 5 tons/year as a result of this measure.

Clean burning wood stoves also provide better efficiency and reliability and it is calculated that the stoves replaced in Oslo in 2013 alone will reduces the heating needs in Oslo by 1,2 GWh/year.

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

For further information (in Norwegian only) please see the web site of Oslo's Climate and Energy Fund: <u>http://www.enoketaten.oslo.kommune.no/article80024-5667.html</u>

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