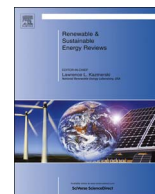




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Impact assessment of Proposal for a Directive on the limitation of emissions from medium combustion plants – National impact assessment compared to the European impact estimate

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ABSTRACT

The December 2013 Medium Combustion Plants Directive (MCP Directive) proposal was evaluated by the national governments. In the Czech Republic, there are 6710 plants affected by this Directive, which is about 4.6% of the total of 143,000 relevant European plants.

The paper introduces our approach of policy impact assessment called SimTool. The costs estimated for the European Commission in the background study (AMEC, 2014) are assumed to reach EUR 5.9 million for the Czech Republic for the preferred scenario by the European Commission. Further presented national impact assessment estimates the induced annual costs of the proposal at EUR 61 million, which is about 10 times greater than the European impact assessment estimate.

As part of the national impact assessment, the different fuel categories had to be analyzed separately due to their specific features and different options for achieving the emission limit target values. During the impact assessment, a survey was made in order to determine the source operators' preferences and responses to the potential adoption of the MCP Directive. Based on the analysis of data from the operators and consultations with experts about the different technologies, technical options for achievement of the proposed emission limits, including an estimate of the operating and investment costs, were proposed.

The paper concentrates on the Czech impact assessment approach and discusses the reasons of the discrepancy between the European impact assessment and the Czech version. We argue that the inaccuracies of the European impact assessments are given by usage of the general abatement cost curves in the models which do not reflect the reality sufficiently. This paper states an argument for the necessity to carry out analysis at the local level.

1. Introduction

Recently, there has been an increasing demand for clean air within the EU area as well as on the global scale. The European Union is striving for a unification of the European legislation for different polluters in an effort to meet the commitments to protect global climate and achieve a cleaner air quality. In the first phase, mostly large combustion sources with a capacity over 50 MW were concerned. Now, the EU's attention has shifted to medium and small combustion sources. The regulatory attention on emission sources smaller than

large combustion plants is actually global, as these efforts prove to be effective also outside the EU [1]. The proposal to introduce a single "Directive on the limitation of emissions of certain pollutants into the air from medium combustion plants with an installed capacity between 1 and 50 MW" (hereinafter, the MCP Directive [2],) is part of the package of measures to clean up Europe's air.

As part of the negotiation process, the Directive proposal has undergone an impact assessment at the national level and the level of regulated substances. The starting point for the assessment was the AMEC (2014) [3] study, which assessed several different scenarios. The

Abbreviations: capex, capital expenditure; CZK, Czech crowns; EL, emission levels; EU, European Union; EUR, Euros; GAMS, General Algebraic Modeling System; GJ, gigajoule; IED, Industrial Emissions Directive; MCP, medium combustion plants; MS, member states; MW, megawatt; MW_t, megawatt (thermal); NO_x, nitrogen oxides; opex, operational costs; PM, particulate matter; PRIMES, Price-Induced Market Equilibrium System; RAINS, Regional Air Pollution Information and Simulation; RIA, regulatory impact assessment; SO_x, sulfur oxides; SO₂, sulfur dioxide

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Table 1
Target emission levels (mg/Nm³) and costs of achieving proposed emission limits in the Czech Republic under different options (million EUR).
Source: Own adaptation from [13] (pp. 165–175)

	Business as usual	IED 50–100 MW		Most Stringent MS		Gothenburg		SULES	
	Emission levels	Emission levels	Total costs	Emission levels	Total costs	Emission levels	Total costs	Emission levels	Total costs
SO ₂	2559–3206	400	4.2	200	5.2	400	3.4	200 ^a	3.6
NO _x	978–1226	300	16.5	100	25.4	680–800	0.3	100 ^a	3.7
PM	376	30	2.7	5	3.5	30	2.3	5 ^a	2.3
Total	–	–	23.3	–	34	–	5.9	–	9.6

^a Holds only for new plants, existing plants follow Gothenburg.

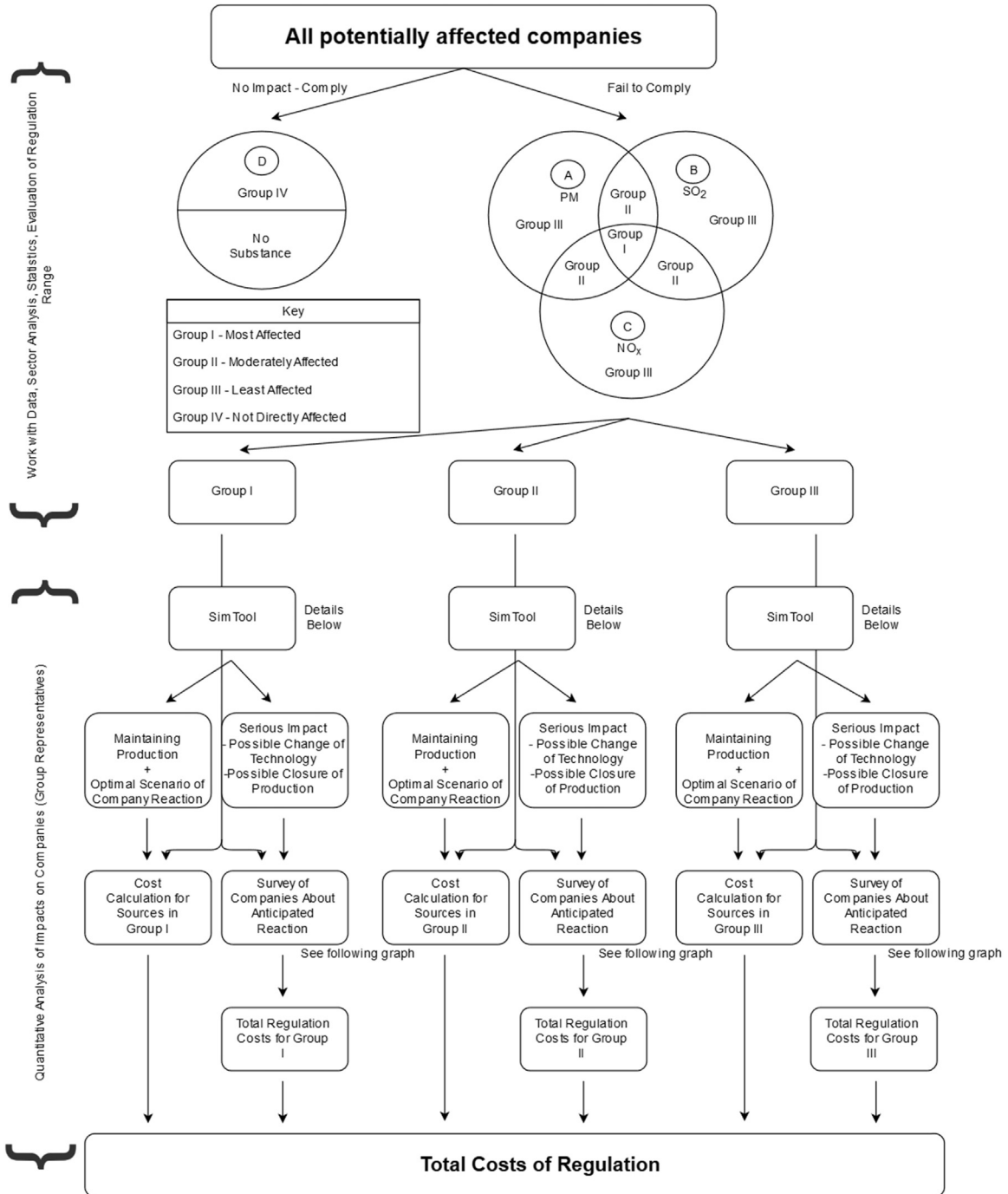


Diagram 1. Illustration of impact assessment of individual plants.
Source: Own approach

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