

Climate change aspects within EIA proceedings

Czech Republic: Prunéřov II Power Plant

Case Study

Justice and Environment 2012

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Art. 3 (b) and Annex No. IV. of the Directive of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (EIA Directive - 2011/92/EU) laid down that environmental impact assessments shall identify, describe and assess in an appropriate manner direct and indirect effects on climate, and shall include a description of the aspects of the environment likely to be significantly affected by the proposed project, in particular – and inter alia - climatic factors, and the inter-relationship between all the factors mentioned therein. Climate relevant impact of a plan should be assessed but in practice it is very limited and formal without deeper evaluation.

1. Title of the case

Prunéřov II power plant, Czech Republic

2. Description of the project

2.1. *Features of the project, location, likely environmental impacts etc.*

The Prunéřov plant is the largest lignite-fired power plant in the Czech Republic. It is situated on the western edge of the North-Bohemian brown coal basin near the town of Chomutov. It consists of two units, the Prunéřov I power station began operations between 1967 and 1968, the Prunéřov II power station between 1981 and 1982.

The Prunéřov power stations are one of the largest electricity suppliers in the country. The complex - consisting of the 4 x 110 MW Prunéřov I and the 5 x 210 MW Prunéřov II - is currently the largest single industrial source of CO₂, SO₂ and NO_x emissions in the Czech Republic. Prunéřov II currently emits about 7.1 million tonnes of CO₂ p.a.¹, while the entire Prunéřov complex emits 9 million tonnes of CO₂ annually².

ČEZ, the operator of the Prunéřov power plants, proposed to replace three existing blocks in the Prunéřov II and prolong its life for another twenty-five years.³ The plan involves use of an out-dated technology that would fail to reach the required level of "Best Available Techniques" (BAT) as set out by the EU and Czech IPPC⁴ legislation. This legislation requires a minimum of 42 % net energy efficiency for the new power plant, while ČEZ proposes only about 38 %. This fact would result in additional and unnecessary CO₂ emissions.

2.2. *Does the project have likely harmful impacts on the environment, especially on climate?*

Yes, there are several impacts to be considered. First, the project is located in region that has been already seriously affected by the air pollution. In the locations near to the power plant (Klášteřec nad Ohří, Chomutov or Jirkov) the protection limits set by the World Health Organizations are significantly exceeded regularly. During its extended life span the new power plant units will emit approximately 4000 t of dust emissions and 60 000 t of SO_x emissions in the air.

¹ The EIA documentation on the project 'Complete renewal of Prunéřov II 3 × 250 MWe power plant', p. 105, data from 2007 See http://tomcat.cenia.cz/eia/detail.jsp?view=eia_cr&id=MZP221.

² For more information Annual report 2009 of The Integrated Register of Pollution (in Czech language). See: http://www.irz.cz/sites/default/files/Souhrnna_zprava_IRZ_2009.pdf.

³ Jan Horák, Dokumentace záměru Komplexní obnova elektrárny Prunéřov II 3 × 250 MWe dle zákona č. 100/2001Sb., v platném znění [EIA documentation on the project Complete renewal of Prunéřov II 3 × 250 MWe power plant]15 (2008) available at Informační systém EIA, [MZP221 dokumentace.zip http://tomcat.cenia.cz/eia/detail.jsp?view=eia_cr&id=MZP221](http://tomcat.cenia.cz/eia/detail.jsp?view=eia_cr&id=MZP221).

⁴ Integrated Pollution Prevention and Control.

Second, there are not enough lignite reserves in the supplying mine (Tušimice- Nástup) that would allow operation of the new units for the whole planned period. This implies that in order to secure that the plan of the power plant operation is kept, a huge lignite transports (approximately 4 mil. t p.a.) will need to be organized in the future. There is also a risk that it will require also extension of current lignite mining plans in North- Bohemia beyond the limits currently set by the Czech legislation.

Third, the Prunéřov II is one of the largest contributor of CO₂ emissions in the country. The project will lower the annual CO₂ emissions from 7.1 million tonnes to 4.4 million tonnes of CO₂ a year but prolongs the operation of the power plant by another 25 years. In addition to that, the project applies technology with the lower efficiency than BAT which will result in additional CO₂ emissions amount to 12.4 million tonnes over 25 years.

3. Applicable national regulation

3.1. Which are the main national provisions transposing the EIA Directive?

The main act transposing the EIA Directive in the Czech Republic is Act No. 100/2001 Coll. on Environmental Impact Assessment and Amending Some Related Acts, as amended by Act No. 93/2004 Coll., Act No. 163/2006 Coll., Act No. 186/2006 Coll., Act No. 216/2007 Coll., Act No. 436/2009 Coll.⁵, hereinafter referred to as the “EIA Act”.

3.2. Does the national regulation on EIA demand taking climate change aspects into consideration in the procedure?

Yes, pursuant para 2 of the EIA Act, “Scope of the Assessment: The assessment shall comprise the impacts on public health and the impacts on the environment, including impacts on fauna and flora, ecological systems..., *climate*,... and on the mutual interactions and connections between them.”

Further, Annex No. 4 to the EIA Act establishes the “Requisites of Documentation”, in Part C, Information on the state of the environment in the affected territory: 2. Characteristics of the current state of the environment in the affected territory (e.g. air and *climate*, water, soil, geological environment and natural resources,...).

Similarly, Part D, “Complex characteristics and evaluation of the impacts of the plan on the population and environment” includes I. Characteristics of expected impacts of the plan on the population and the environment and evaluation of their magnitude and importance, point 2: *Impacts on the air and climate*.

⁵ In Czech, Zákon č. 100/2001 Sb., o posuzování vlivů na životní prostředí a o změně některých souvisejících zákonů, ve znění zákona č. 93/2004 Sb., zákona č. 163/2006 Sb. a zákona č. 186/2006 Sb, zákona č. 216/2007 Sb. a zákona č. 436/2009 Sb.

4. Description of the impact assessment procedure

4.1. *Type of procedure, competent authorities, claimants and other participants involved*

The Environmental Impact Assessment (EIA) process was undertaken. The competent authority was the Ministry of Environment (hereinafter referred to as a “Ministry”).

Pursuant para 23 sub-para 10 of the EIA Act the outcome of EIA procedure is not considered as a stand-alone decision and cannot be reviewed separately. The EIA procedure can only be challenged during the subsequent administrative procedures (in particular the Land Use permitting procedure).

Thus, the final EIA statement was reviewed and upheld, by the Building Authority in Kadaň and the Regional Authority of Ustecký kraj. Judicial review of this decision by the Regional court in Ústí nad Labem has been started in 2012 and at the time of writing this paper no results have been known yet.

Besides the affected municipalities, concerned public authorities, the following entities participated in the process: the Federated States of Micronesia (FSM)⁶, NGOs that opposed the ČEZs plan due to its incompliance with the BAT requirements, insufficient consideration of impacts on climate and prolonged impacts on the local environment - Environmental Law Service, Greenpeace and Chomutov pod pokličkou ČEZu.

4.2. *Does the project have likely harmful impacts on climate?*

The Prunéřov II is one of the largest contributor of CO₂ emissions in the country. In case the project will be realized, for the next at least 25 years a single source will be operated, responsible for more than 3% of the overall greenhouse gas emissions of the Czech Republic.⁷

Nor Czech neither EU law provide any clear guidance on what is the threshold indicating potential harmful impacts of the project on climate and triggering an analysis of such impacts as well as analysis of potential mitigation measures to be applied. Nevertheless, it could be argued that in case of the Prunéřov complex such threshold was met – considering the contribution of this source to the greenhouse gas emissions in the country.⁸

⁶ On December 2009 FSM requested a transboundary Environmental Impact Assessment due to potential climate impacts of the plant's emissions. The Ministry responded positively to the request and in the final affirmative EIA statement on the project the FSM viewpoint was summarized and considered.

⁷ The total annual greenhouse gas emissions of the Czech Republic were 141,4 million tons (CO₂ eq.) in 2008 ([http://www.mzp.cz/C1257458002F0DC7/cz/zprava_o_zivotnim_prostredi_2009/\\$FILE/OEUPZP-Zprava_ZP_2009_CZ-20110131.pdf](http://www.mzp.cz/C1257458002F0DC7/cz/zprava_o_zivotnim_prostredi_2009/$FILE/OEUPZP-Zprava_ZP_2009_CZ-20110131.pdf)).

⁸ A reference to the U.S. CEQ draft guidance calling on climate change to be considered throughout the environmental assessment process could be made. In the draft guidelines presumptive threshold of 25,000 metric tons of CO₂ equivalent emissions triggers a quantitative analysis, and explains how to assess the effects of climate change.

With regard to this issue, it is also significant that the project involves the use of an out-dated technology that fails to reach the net efficiency prescribed by the BA T requirement, thus resulting in a higher CO₂ emissions emitted for another 25 years. Thus a suitable alternative exists in this case and if deployed, CO₂ emissions could be lowered by about 500 thousand tonnes a year and overall, the difference will amount to 12.4 million tonnes of CO₂ over 25 years.

4.3. Did the assessment meaningfully evaluate the likely impacts of the project on climate?

The documentation issued by ČEZ did not provide an assessment of the plan's climate impacts. At the request of the Ministry⁹, ČEZ supplemented the documentation with a separate expert's report prepared by the Czech climatologist Dr. Pretel. The report stated that GHG emissions of the plant are marginal and not able to cause serious environmental impacts such as rising sea level or melting glaciers.

This conclusion was accepted by the Ministry.¹⁰ The expert's conclusion was based on a comparison of the isolated GHG emissions of the single plant to global GHG emissions.

4.4. Had the claimant or other participants stressed the priority of preventing climate change? If yes, had been these arguments taken into account?

Yes, in the course of the EIA process, several participants (Environmental Law Service, Greenpeace, FSM) submitted their comments highlighting the problem of GHG emissions and their contribution to the climate change. However, these arguments were rejected by the Ministry of Environment on the basis of the expert opinion of Dr.Pretel.

At the same time, the Ministry accepted that by failing to reach the higher net efficiency that would be in compliance with the BA T requirement and requested that ČEZ propose compensation measures to offset the additional emissions of 205,082 tonnes of CO₂ p.a.¹¹ at its other projects.

⁹ Letter from Jaroslava Honová, the Ministry of the Environment of the Czech Republic, to ČEZ a.s., (Mar. 9, 2009) available at Informační systém EIA, [MZP221_vraceni.pdf](http://tomcat.cenia.cz/eia/detail.jsp?view=eia_cr&id=MZP221), http://tomcat.cenia.cz/eia/detail.jsp?view=eia_cr&id=MZP221.

¹⁰ EIA Statement, at 13.

¹¹ During the EIA process, the Ministry asked the Norwegian consulting company Det Norske Veritas (DNV) for an international third-party assessment of the project. DNV concluded that the proposed project failed to comply with the Reference Documents for Best Available Techniques (BREF) minimal requirement of 42% net energy efficiency and that the corresponding local technical grounds to support this deviation had not been sufficiently explored. The difference was calculated to have an impact of 205,082 tons of CO₂ per annum (p.a.).

5. *Outcome of the proceedings / content of the final decision*

In April 2010, the Ministry issued an affirmative EIA statement on the project. The statement includes information that FSM and other participants submitted their comments and summarized the fact that they expressed disagreement with the climate protection and the failure to fulfil the BAT requirement on energy efficiency.

The Ministry responded that the plan cannot seriously affect the environment and populations outside the Czech Republic because realization of the plan will reduce the current emissions of major air pollutants and because the CO₂ emissions of the plant are marginal compared to global emissions.

6. *Obstacles/Challenges generated in this case*

This case has shown the practical problem of how to approach the climate impact of large GHG emission sources in the assessment as required by the EIA Directive and the national EIA laws. Neither Czech nor EU laws provide clear guidance on the GHG emission threshold that should trigger an analysis of an individual project's impact on the climate. Such a threshold should however be based on a comparison of the size of the GHG source relative to other sources rather than to global GHG emissions. To do otherwise would lead to the absurd conclusion that there is no reason to reduce the GHG emissions of any single source of GHG emissions because of its "marginality."

The same argument could consequently be used to reject emissions reductions for entire States: there are 112 UN member States with total annual CO₂ emissions lower than the Prunéřov complex¹².

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¹² UN Millennium Development Goals Indicators, data from 2007, <http://mdqs.un.org/unsd/mdq/SeriesDetail.aspx?srid=749&crd=>.