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Ministry of the Environment of the Czech Republic
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SUBJECT: Viewpoint of the Federated States of Micronesia on the complex renovation of Prunerov II power plant 3x250 MWe plan

Dear Karel:

We want to thank you for responding to our request for a Transboundary Environmental Impact Assessment (EIA) for the proposed Complete Renewal of Prunerov II 3 x 250MWe Power Plant Project (Project). In accordance with the Czech EIA Act (Act 100/2001 Coll.), we hereby provide our viewpoints on the EIA for the Project. Generally, we agree with the plan to modernize the Prunerov II by building new facilities. However, the EIA failed to provide and assess all potential impacts and all possible alternatives to minimize adverse impacts of modernizing the Power Plants. In this regard, we highly recommend that Czech Ministry of the Environment should issue a negative final statement on the environmental impact assessment of this plan and have the EIA process extended to include sufficient assessments of all alternatives. We believe this will be beneficial to the policymakers in your country when making the final decision on the best way to move forward on this important project. And ultimately, it will benefit your local environment and the global environment where we all share.

Expert Report

The climate impacts of the plan were not assessed in the documentation nor in expert report while in fact they should have been the central point of the assessment.

As far as we know, the Prunerov II power plant is the 18th biggest source of greenhouse gases in the European Union. This single power plant emits approximately 40 times more CO₂ than the entire Federated States of Micronesia. If you accept Dr. Pretel's view that negative climate impacts of Prunerov are "entirely marginal and unprovable", you are implicitly saying at the same time that there is no need to care about emissions reduction of

the FSM and another 209 (two hundred and nine) countries around the world¹ whose annual CO₂ emissions are lower than those of Prunerov.

We considered the option to request a revision and amendment of the documentation, but due the arguments mentioned below, it would not have changed our negative verdict on the plan. Therefore we consider the fact that the climate impacts of the plan were ignored to be further grounds to issue the negative final statement.

Alternatives (BAT)

The CEZ power company is planning to modernize three of the five current blocks of the Prunerov II power plant by using -- from our point of view -- out-dated technology that would fail to reach the required level of best available technology (BAT) as set out in both EU and Czech legislation (Directive 2008/1/EC of the European parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control; Reference Document on Best Available Techniques for Large Combustion Plants). This legislation requires a minimum of 42 % net energy efficiency for a new power plant, while CEZ proposes only about 38 %. Efficiency belongs among the criteria of the best available technology in the category of large combustion plants. According to the BREF, energy efficiency is the most important criterion for the project.

We assume that CEZ -- and the person preparing the expert report -- intend to bypass the above mentioned efficiency requirements by portraying the renovation of Prunerov II as a retrofit, i.e. modernization of an existing plant, and not as a totally new construction of three blocks. Their arguments in favor of not using BAT are based on the aforementioned legislation that requires lower limits of efficiency for reconstruction projects than for projects involving the construction of new installations. From our point of view, it is necessary to consider the modernization of this kind as a new installation according to Czech and EU legislation. Moreover, as far as we know, during the development of the EIA, this point of view was accepted by the Czech Ministry of the Environment and the European Commission. Therefore it is not acceptable to extend the operational life of the plan for another 25 years using technology of quality far below the best available techniques.

CEZ's current renovation plans regarding the Prunerov II power plant would lower CO₂ emission from 7.1 million tonnes to 4.1 million tonnes of CO₂ per annum; but if they used BAT, it would be lowered further to 3.8 million tonnes per annum. Although at first sight the difference between the two figures appears small, the overall environmental impact will be significant as CEZ plans to use this outdated technology for the next 25 years. Overall, the difference will amount to 9 million tonnes of CO₂. This is totally unacceptable and from our point of view it is extremely important that CEZ uses BAT for the renovation of Prunerov II.

We know that the Ministry of the Environment of the Czech Republic ordered CEZ to supplement and rework the EIA documentation. CEZ was required to propose an alternative which includes the BAT efficiency. However, CEZ totally failed to provide any alternatives to its current plan despite the fact that it is obliged to, according to the EIA Act and an order from the Ministry. The EIA documentation did not meet the requirements of

¹ See <http://mdgs.un.org/unsd/mdg/SeriesDetail.aspx?srid=749&crd=>.

the Act in terms of submission of a variant solution. We do not understand how it is possible that this clear obligation was overlooked by the person preparing the expert report.

On the Federated States of Micronesia

The Federated States of Micronesia is a young, independent nation created from part of the former United States administered United Nations Trust Territory of the Pacific Islands following the conclusion of a Compact of Free Association with its former administrator, the United States, in 1986. In 1991, the FSM became a member nation of the United Nations.

The FSM includes the most geographically and culturally diverse part of the greater Micronesian region. The nation is comprised of four states – Yap, Chuuk (formerly Truk), Pohnpei (formerly Ponape), and Kosrae (formerly Kusaie) – lying along the equator and stretching about 2 700 kilometers in geographic sequence from west to east. Specifically, the FSM is located in the western Pacific Ocean between the equator and 14 degrees North latitude, and between 136 degrees and 166 degrees East longitude.

The marine area within the FSM's Exclusive Economic Zone (EEZ) totals over 2.6 million square kilometers and includes abundant and varied resources. The land area constituting the FSM's 607 islands, however, is only 701 square kilometers. Of these hundreds of islands, a number are relatively large and mountainous or hilly, while the rest are small, flat coral atolls or raised coralline islands.

The diverse habitats and species of the natural environment have always had a profound influence on the Micronesian people and their cultures. There are marked differences among and even within the four states, reflecting both the conditions of nature and the social structures that have evolved over the thousands of years since the islands were first settled.

The national government has identified four climate change phenomena which, over the short-term and long-term, represent a significant threat to the well-being of the environment and people of the FSM. These priority vulnerabilities are: **Accelerated Sea-Level Rise, El Nino Events, La Nina Events, and Greenhouse Gas Emissions.**

On Accelerated Sea-Level Rise

Global warming (i.e., increasingly warmer global surface temperatures) caused by greenhouse gases building up in the atmosphere will lead to an "accelerated rate of global sea-level rise" or ASLR. This sea-level rise will be mostly the result of thermal expansion of the upper layers of the world's oceans due to warming, though increased melting of glaciers, small ice-caps, and the relatively large Greenland ice-cap would also contribute. Global sea-level has risen an average of 1.8 millimeters per year over the past 60 years. This is a rate of rise equal to about 17.8 centimeters per century. This rate is expected to accelerate due to global warming. The Intergovernmental Panel on Climate Change (IPCC) estimates that, under a "Business-as Usual" scenario, sea-level will rise on a global range from 0.3 to 1.0 meter above present levels by the year 2100.

There could be many impacts of accelerated sea-level rise on the FSM. Some of the major physical effects might include the loss of land due to saltwater inundation, coastal erosion, salination of freshwater lenses, and increased occurrences of coastal flooding due to wave and storm surge. Any of these impacts would have major adverse environmental, social, cultural, and economic repercussions.

All the islands of the FSM are vulnerable to the threat posed by ASLR. Throughout the nation, the coastal areas are typically the most heavily developed, providing homes, infrastructure, and economic opportunities for the majority of the population. On high islands, options for abandoning coastal areas affected by inundation or flooding are quite limited due to steep slopes and complex land tenure issues. On atolls, saltwater intrusion would destroy taro and other crops, and damage groundwater supplies even before large-scale inundation necessitated the migration of islet inhabitants. And, across the FSM, major historical and cultural sites located along shorelines could be lost forever.

In summary, ASLR represents a dire climate change threat to the entire nation, both high islands and atolls, due to coastal inundation, erosion, and flooding due to wave and storm surge.

On El Nino Events

Scientists have speculated that global warming may cause an increase in the number, strength, and duration of El Nino episodes.

During a "typical" El Nino event, the FSM suffers drought conditions during the Winter and Spring months. With a severe El Nino episode, drought can begin as early as late Fall and extend into the following Summer. The stronger the El Nino, the longer-lasting the drought conditions will likely be. Whether an El Nino event is "typical" or stronger than usual, Yap and western Chuuk, being in the western part of the FSM, tend to be affected somewhat earlier and, in most cases, more harshly than eastern Chuuk and the eastern FSM states of Pohnpei and Kosrae.

In summary, over both the short-term and long-term, El Nino episodes represent a significant climate change threat to the FSM because of the drought conditions they cause. And, due to global warming, El Nino events could become more frequent, intense, and longer lasting in the future. Thus, over the next century, El Nino episodes may come to pose an even greater threat to the FSM.

On La Nina Events

Due to the region of active rainfall and storm formation following the movement of warm water westward, during a "typical" La Nina event, the FSM suffers heavier than normal rainfall, flooding, and wave and storm surge conditions during the Winter and Spring months. Thus, over both the short-term and long-term, La Nina episodes represent a climate change threat to the FSM.

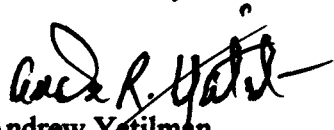
On Prunerov's share of the global emissions

A study written by Dr. Jan Pretel for the CEZ utility indicates that Prunerov II's share of global CO₂ emissions is 0.021% (and consequently 0.0161 % of global emissions of greenhouse gases). In general, as an island nation which is directly threatened by adverse impacts of climate change, we do not see any important reasons to build new lignite-fired power plants which accelerate climate change. There are many alternative methods of producing energy with much lower levels of greenhouse gas emissions. Although we are aware that GHG emissions produced solely by the Prunerov II power plant will not directly cause sea-level rise, change weather patterns and increase storms, there are approximately

only 5 000 such power plants which contribute to total global CO₂ emissions. Therefore every single power plant clearly plays an important role and warrants a transboundary impact assessment.

To conclude, we do not agree with the plan of the Prunerov II modernization as this plan is in substantial conflict with EU and Czech law and its serious environmental impacts could affect the territory of our State. We therefore ask the Czech Ministry of the Environment to issue a negative final statement on the environmental impact assessment of this plan

Yours faithfully,



Andrew Yatilman
Director

On behalf of the Federated States of Micronesia