



## **Avoiding a Bumpy Ride: How rigorous EIAs and Project Communication can pave the way to project success.**

Insights from three decades  
Waste-to-Energy permitting in Austria.

NMC Congress, Štrbské Pleso, Slovakia  
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Environmental Management and Engineering

**Dr. Helga Stoiber**

# UVP GmbH - Company Profile

We are a **leading Austrian planning and consulting company** in the field of **waste management** and **environmental engineering**, located in Vienna.

We are a team of about 20 process engineers, civil engineers, and environmental engineers.

Our field of expertise is the development of **sustainable waste management options**, with a focus on

- **Landfill remediation** and
- **Waste-to energy**.

**Since the 1990s, we have successfully carried out many national and international projects.**

# UVP Company Profile (2)

## Concept, Feasibility Study, Basic Engineering, (EIA) Permitting



**RVL Lenzing 1K8  
(1998)**

110 MW  
300,000 t/a



**EVN Dürnrrohr 1+2  
(2003)**

2 x 60 MW  
360,000 t/a



**ENAGES Niklasdorf  
(2003)**

40 MW  
145,000 t/a



# Some References (2)

## General Planners in Construction Phase



**SKN Nettingsdorf  
Black Liquor Boiler  
(2020)**  
177 MW

## Concept, Feasibility Study, Basic Engineering and (EIA) Permitting



**RHKW Linz  
(2012)**  
76 MW  
275,000 t/a



**Norske Skog K9  
(2022)**  
49 MW  
250,000 t/a

# UVP's White Books on Waste-to-Energy

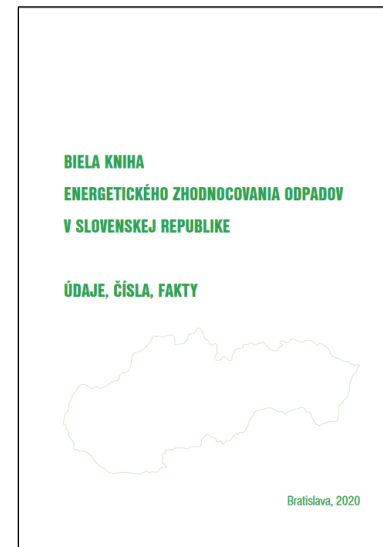


Environmental Management and Engineering



## AUSTRIA (1999, 2009, 2015)

[https://www.bmk.gv.at/themen/klima\\_umwelt/abfall/Kreislaufwirtschaft/verwertung/studien/weissbuch.html](https://www.bmk.gv.at/themen/klima_umwelt/abfall/Kreislaufwirtschaft/verwertung/studien/weissbuch.html)



## BIELA KNIHA ENERGETICKÉHO ZHODNOCOVANIA ODPADOV V SLOVENSKEJ REPUBLIKE ÚDAJE, ČÍSLA, FAKTY

### SLOVAKIA (2020)

<https://www.ewia.sk/wp-content/uploads/2021/03/biela-kniha.pdf>



## BELA KNJIGA O DOBIJANJU ENERGIJE IZ OTPADA U SRBIJI

### SERBIA (2024)

<https://www.activity4sustainability.org/wp-content/uploads/2024/08/Bela-knjiga-o-dobijanju-energija-iz-otpada-u-Srbiji.pdf>

# Content

- **WtE permitting – EU Legal Framework (Overview)**
- **Requirements for WtE permitting defined by the EIA Directive**
- **EIA permitting procedures for WtE plants in different countries**
- **Examples and experience from UVP GmbH projects**
- **Conclusions and recommendations**

Please note that this presentation refers to **Waste-to-Energy (WtE) plants**, i.e. to waste incineration plants in the definition of the Industrial Emissions Directive (IED) that fulfil the R1 criterion defined by the Waste Framework Directive (WFD).

# Permitting of Waste-to-Energy Plants in the European Union (1)

## ➤ **Industrial Emissions Directive (IED)**

Directive 2010/75/EU

amended in August 2024 by the **Industrial and Livestock Rearing Emissions Directive (IED 2.0)**, Directive (EU) 2024/1785

➤ **IED Chapter IV** and **Annex VI** apply → „from the first kg of waste“

## ➤ **IPPC Installation: YES/NO?**

- incineration of **> 10 t/d** of hazardous waste or
- incineration of **> 3 t/h** of non-hazardous waste

➤ Also **IED Chapter II** applies → special regulations for IPPC installations

➤ **Best Available Techniques (BAT)** have to be applied → **BAT Reference Document on Waste Incineration (BREF WI)** and other BREF documents apply.

# Permitting of Waste-to-Energy Plants in the European Union (2)

- **Environmental Impact Assessment (EIA): YES/NO?**  
**EIA Directive (2011/92/EU)** as amended by Directive 2014/52/EU
- Waste incineration (disposal) of hazardous waste (**no threshold value**),
- Waste incineration (disposal) of **> 100 t/d** of non-hazardous waste.
  
- **Aarhus Convention**  
UNECE Convention on **Access to Information, Public Participation in Decision-making** and **Access to Justice** in Environmental Matters



# Requirements defined by the EIA Directive (1)

**Environmental Impact Assessment (EIA)** means a process consisting of:

- i. the preparation of an **EIA report** by the developer,
- ii. the carrying out of **consultations**,
- iii. the **examination by the competent authority** of
  - the information presented in the EIA report,
  - any supplementary information provided where necessary, by the developer, and
  - any relevant information received through the consultations.
- iv. the **reasoned conclusion by the competent authority on the significant effects of the project on the environment**;
- v. the integration of the competent authority's reasoned conclusion into any of the **decisions** referred to in Article 8a.

# Requirements defined by the EIA Directive (2)

**Assessment of direct and indirect significant effects** of a project on:

- a) population and human health;**
- b) biodiversity**, with particular attention to protected species and habitats;
- c) land, soil, water, air and climate;**
- d) material assets, cultural heritage and the landscape;**
- e) the interaction between these factors (a) to (d).**

Also the expected effects deriving from the project's risks of **major accidents** and/or **disasters** have to be assessed.

## Detailed description of the WtE project

- **Project** – purpose, location, infrastructure, transport, integration into existing plants on-site, potential for energy delivery, duration of planning phase and construction phase...
- **Installation** – type of installation, capacity, input and output, process description, mass balances, energy balances, yearly availability...
- **Waste input** – waste numbers, amounts per waste number (min-max-average), heating value (LHV), physical and chemical properties, hazardous properties...
- **Waste handling** – deliveries, storage, on-site waste transport, pre-treatment, dosing of waste...
- **EI&C... Waste generated... Emissions to air/water... etc. etc. ...**

# EIA Report in practice (2)

## Description and assessment of alternative solutions

- Comparison with „**zero variant**“
- Comparison with **other sites**
- Comparison with **other technological solutions**

# EIA Report in practice (3)

## Description of Environmental Impact & Measures taken against it with regard to:

- Soil and underground
- Groundwater
- Surface water
- Animals and their habitat
- Plants and their habitat
- Forest
- Wild animals and hunting
- Protected areas
- Micro and macro climate
- Air
- Housing areas
- Agriculture
- Ressource efficiency
- Cultural heritage
- Leisure and recreation
- Human health
- Landscape
- Townscape and architecture

For **construction phase, operation phase, accident, site closure, aftercare.**



# Side note: Differences in EIA permitting procedures in different states

The **Austrian Waste Act** allows for a **Concentrated Permitting Procedure**, which means that all other permits and legal regulations that are relevant for the WtE project in question can be treated within this **one single** permitting procedure.

This includes, among others, also

- EIA permitting, IPPC permitting, water permit, workers' safety, Seveso Directive (if applicable), fire and explosion protection etc.

Considerable differences when compared to highly complicated permitting procedures for WtE plants in most other countries.

- **One permit application (that covers all) & one permit.**
- **The competent authority is always the same**, for permitting, environmental inspection, receiving data reports (ePRTR, emission reports).

# Communication

## Two examples from Austria

## Project

- Only invest in „good“ and well-considered WtE projects.
- Get into an exchange with the competent authority at an early stage.
- Go the extra step with regard to environmental protection.
- Provide reliable calculations, drawings and documents in high quality.
- Engage a competent and experienced general planner.

## Communication

- Communicate in an active way & always be one step ahead.
- Take the people's fears and anxieties seriously.
- Be transparent & provide reliable information.
- Get support from a communication expert with specific experience.

# Thank you for your attention



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