ÖKOBÜRO
ALLIANCE OF THE ENVIRONMENTAL MOVEMENT

Resource & Analysis Center
"SOCIETY AND ENVIRONMENT"

ASSESSMENT AND PARTICIPATION REQUIREMENTS FOR THE LIFETIME EXTENSION OF NUCLEAR POWER PLANTS

Analysis and Practical Guide

Vienna/Lviv, August 2022

Table of Contents

1. Introduction

1.2. Background

Due to the wide scope of potential impact of projects in the nuclear sector, international legislation is essential in this area. The Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (*Aarhus Convention*) and the Convention on Environmental Impact Assessment in a Transboundary Context (*Espoo Convention*) ensure that nuclear projects are subject to environmental assessment, that transparent processes take place and that the public is involved. In practice, however, Parties to these two Conventions do not always meet these obligations. Thus, numerous cases have come before the Compliance and Implementation Committees of the Aarhus and Espoo Conventions, respectively. Therefore, especially in the nuclear sector, there are many proceedings before the two UNECE committees as well as discussions on international level.

A particular issue involves lifetime extensions (LTEs), which are becoming more frequent have occurred in several cases without an EIA and associated public participation. Since the new construction of nuclear power plants is often no longer economically feasible, operators are trying to keep old reactors online as long as possible by means of LTEs, which can lead to enormous safety risks. Specific legal and practical questions concerning LTEs have led the Meeting of the Parties to the Espoo Convention to adopt a guidance document addressing this particular issue.

In addition to providing an overview as to relevant legal aspects and recent developments, this paper shall serve as practical guide and lead to a clear overview of interrelations and better information of the public and interested representatives of Parties to the Espoo and Aarhus Conventions.

1.2. Concept of lifetime extension

There are several factors limiting the lifetime of a nuclear reactor, be they political, environmental, legislative, technical, or maybe even economic aspects. Most of the time however, it is the technical design lifetime that determines the duration of an operating license for a nuclear power plant. This lifetime is based upon “design cycles”, which describes the number of operational events a reactor may experience throughout its lifetime, as well as ageing and equipment becoming obsolete. Lifetime may be increased by means of extensive renovation; however, there are some structures, systems and components that are considered irreplaceable and whose design life may thus determine the lifetime of the entire reactor.[1] More than two thirds of the operating 442 nuclear power plants around the world are over 30 years old and approaching – or have already reached – the end of their originally envisaged operational lifetime of about 40 years.[2]

[1] UNECE, Guidance on the applicability of the Convention to the lifetime extension of nuclear power plants (2020) para 20, in the following: LTE Guidance.
[2] International Atomic Energy Agency (IAEA), Nuclear Power Plant Life Extensions Enable Clean Energy Transition (2020), available at https://www.iaea.org/newscenter/news/iaea-data-animation-nuclear-power-plant-life-extensions-enable-clean-energy-transition#:~:text=More%20than%20two%20thirds%20of%20the,and%20corresponding%20safety%20reviews%20by%20au

Since old reactors have usually already amortised their original cost and are thus relatively cheap to run, there are political as well economic justifications to keep them online beyond their design lifetime and receive a license of some sort for extending the operation. The term "lifetime extension" is not an established term of international law (see section 2.2), but generally describes a prolongation of the operation of a nuclear power plant.

There are currently proceedings and cases pending before international bodies to clarify the requirements to carry out a transboundary environmental impact assessment (EIA) for more than 40 reactors.[3] Several legislative acts govern the environmental impact assessment of projects, but some questions remain as to their application on lifetime extension of nuclear power plants.

1.3. Structure of this guide

Section 2 of this guide aims to lay down the legal framework governing the assessment of lifetime extensions of nuclear power plants, focussing on the Espoo and Aarhus Conventions and including relevant case-law by the Committees with the mandate to ensure the implementation and compliance with these conventions. In an excursus, the foundations of relevant EU law and jurisdiction will be explained as well.

Section 3 is aimed at decision-makers in the nuclear sector, particularly nuclear regulators or other authorities taking LTE decisions. It lays down the necessary procedures whether a transboundary environmental impact assessment must be carried out or not.

Section 4 targets Espoo focal points for the activities under the implementation of the Convention on Environmental Impact Assessment in a Transboundary Context and lays down possible implications for the focal points resulting from legislative acts.

In *Section 5*, the aim is to make countries who may be affected by LTE aware of their rights and to aid in communication with the Party of origin.

Section 6 points out rights of members of the public in the Party of origin (a state where a lifetime extension is planned) as well as in the state that might be affected by such a lifetime extension. It lays down the relevant procedures when it comes to notification of the public as well as access to information and the right to comment on a project.

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[3] Report of the Implementation Committee on its fifty-third session ECE/MP.EIA/IC/2022/4, 15 June 2022, concerning SEA/IC/CI/8 (*Bulgaria*), SEA/IC/CI/9 (*Belgium*), EIA/IC/INFO/19 (*Czech Republic*), EIA/IC/ INFO/32 (*France*), EIA/IC/INFO/34 (*Spain*), and EIA/IC/ INFO/10 (*Ukraine*).

2. Legal Framework

2.1. Espoo Convention

2.1.1. Espoo Convention: introduction

The UN ECE Convention on Environmental Impact Assessment in a Transboundary Context, commonly known as Espoo Convention, provides a framework for the participation of affected states and their public in the assessment of activities that may have considerable transboundary environmental effects. So far, over 40 states as well as the European Union have ratified the Convention that was adopted in 1991 and came into force on 10 September 1997.

The Espoo Convention places the state in which a project is located (so-called "Party of origin") under the obligation to evaluate potential transboundary effects of certain activities listed in Appendix I of the Convention. Moreover, the state must notify affected parties of those activities and give them the opportunity to participate in the environmental assessment proceedings.[4] Members of the public of an affected party are granted the right to comment on the "proposed activity", i.e. any activity or major change to an activity subject to a decision of a competent authority in accordance with an applicable national procedure.[5] Since nuclear activities, especially in case of accidents, typically have far-reaching transboundary environmental effects, nuclear reactors are listed in para 2 of the Convention's Appendix I and the Espoo Convention is commonly applicable to nuclear reactors and relating projects.

Further, the Espoo Convention has several working bodies, including the Espoo Implementation Committee (Espoo IC)), Working Group on EIA and SEA, and the Meeting of the Parties (Espoo MOP)[6]. These bodies enable the convention to be an effective international instrument which is constantly adapting to new realities and challenges by reviewing compliance of the parties, adopting various guidelines or amendments, including the LTE Guidance.

2.1.2. Formal procedure

The Convention distinguishes between the obligations of the so called "Party of origin" and the rights of "affected Parties". Generally, "Parties" are the contracting bodies to the Convention,[7] meaning that the term refers to the contracting states (as well as the European Union). The "Party of origin" designates the state under whose jurisdiction an activity is supposed to take place,[8] thus typically the state where a project is located. "Affected Parties" are states that are likely to be affected by adverse transboundary effects of a proposed activity.[9] In the case of nuclear activities, these effects do not stop at directly bordering states; instead, the Party of origin is obliged to evaluate whether further states could potentially be affected.

[4] Article 1 (4)-(5) Espoo Convention.
[5] Article 2 (v) Espoo Convention.
[6] Article 11 Espoo Convention.
[7] Article 1 (i) Espoo Convention.
[8] Article 1 (ii) Espoo Convention.
[9] Article 1 (iii) Espoo Convention.

The formal procedure between the Party of origin and the affected Parties is triggered by a notification of the planned activity, which may or may not be preceded by informal contacts between states. The notification must be made as soon as possible - at the latest, affected Parties must be notified as soon as the public in the Party of origin is informed of the environmental impact assessment process. The notification must include the following information:

a) information on the proposed activity (scope, scale, description, location rationale including maps, timeframe, expected environmental impacts and mitigation measures, etc.), including any available information on its possible transboundary impact and, if already available, the EIA documentation (EIA report or environmental impact statement);[10]
b) the nature of the possible decision;[11]
c) an indication of a reasonable time within which the affected Party shall acknowledge receipt of the notification and indicate whether it intends to participate in the environmental impact assessment procedure.[12]

The affected Party must then respond and declare if it desires to partake in the environmental impact assessment procedure. If it decides to do so, it must be provided with all relevant information regarding the EIA procedure, as well as on the proposed activity and its possible significant adverse transboundary impact, including environmental impact assessment documentation.

Based on the information exchanged, the Parties hold consultations and ensure opportunities for the public in the affected areas to participate.[13] The outcomes of such consultations, as well as comments received from the public, must be considered by the Party of origin when making a final decision on the proposed activity.

2.1.3. Involvement of the public

The Party of origin and the affected Party carry the responsibility to inform members of the public in areas that are likely to be affected by a proposed activity.[14] The Espoo Convention lays down minimum requirements for effective informing of the public. The exact scope and extent of the information obligations are usually determined by national law concerning the environmental impact assessment. However, the timeframe for a response set by the Party of origin after having notified the affected Party about a proposed activity must allow for the following:[15]

- transmission of documents to the authorities in the affected Party,
- arrangements for informing the public,
- an equivalent time period for public participation, and

[10] Article 3 (2)(a) Espoo Convention.
[11] Article 3 (2)(b) Espoo Convention.
[12] Article 3 (2)(c) Espoo Convention.
[13] Article 3 (8) Espoo Convention.
[14] Article 3 (8) Espoo Convention.
[15] UNECE, Good Practice Recommendations on the Application of the Convention to Nuclear Energy-related Activities (2017) p. 21.

- the receipt and transfer of comments from the affected Party to the authorities in the Party of origin.

In case the affected Party decides to take part in a transboundary environmental assessment procedure, it must also provide the public with information on how it can participate in the process most effectively. The involved states must also set reasonable time frames for public participation to facilitate effective public participation. In any case, the public in the areas likely to be affected by the project has the right to express comments and opinions before a final decision on the activity is made. They are usually submitted to the competent authority in the affected Party, translated (if necessary) and transferred to the authorities of the Party of origin. After a final decision on the project is reached, it must be made available to the public as well, including additional information describing how the public comments were taken into account as well as opportunities to appeal to the decision.[16]

2.1.4 Compliance mechanism on UNECE level

The Espoo Implementation Committee monitors the compliance of the contracting Parties with the Espoo Convention. If a Party is concerned about another Party's compliance with the convention, it may file a complaint with the Implementation Committee.[17] A Party can also submit a so-called self-referral, if it is doubtful about its own compliance with the obligations under the convention.[18]

The Committee can also initiate a review on its own initiative if it becomes aware of a Party's non-compliance. Here the public comes into play, since it can supply the Committee with the information that it bases its initiative upon. The following criteria must be fulfilled for the Committee to be able to act upon a reference:[19]

- The source of the information is known.
- The information has a relation to activities listed in the appendix I to the Convention. These are activities that are likely to have a significant adverse transboundary impact, including nuclear activities.
- The alleged non-compliance must be based on a profound suspicion.
- The information relates to the implementation of the Convention's provisions.
- Committee time and resources are available.

2.2. LTE Guidance and pending cases

In a case regarding the Ukrainian NPP Rivne, the Espoo IC for the first time had to deal with the question of applicability of the Espoo Convention on the lifetime extension of nuclear power plants. As a result of this case, the Meeting of the Parties found in June 2014, that "the extension of the lifetime of the nuclear power plant, subject of the proceedings, after the initial licence had expired, should be

[16] Ibid, para's 88 et seq.
[17] It should be noted that, as a matter of EU law, EU Member States must settle conflicting issues primarily before the EU courts instead of filing complaints to the Implementation Committee against other EU Member States. This highlights the key role of NGOs to inform the Committee of potential non-compliance in such constellation.
[18] Appendix of Annex II to Decision III/2 2 adopted by the Meeting of the Parties to the Convention on Review of Compliance with the Convention, ECE/MP.EIA/6, para 5.
[19] Ibid, para 6-7.

considered as a proposed activity under article 1, paragraph (v), of the Convention, and is consequently subject to the provisions of the Convention […].” It concluded that the Convention could also be applicable in cases regarding other forms of LTE or NPP long-term operation.

The Espoo MOP, therefore, decided to establish and Ad Hoc Working Group on the issue. This led to the adoption of a Guidance on the Applicability of the Convention to the Lifetime Extension of Nuclear Power Plants (the so-called “LTE Guidance”) in December 2020.[20] In the meantime, more and more LTE cases were brought before the Espoo IC.

Regarding the term “lifetime extension”, the LTE Guidance refers to different factors limiting the lifetime of a NPP (e.g., the design life of certain irreplaceable components).[21] Different states regulate the issue quite differently under their national jurisdiction.[22] Rather than choosing a certain definition, the LTE Guidance describes the following possible situations to be understood as LTE:[23]

1. The end date of a time limited licence has been reached, but the nuclear power plant is intended to continue operation.
2. The NPP has a time unlimited licence, but the design life of irreplaceable safety critical structures, systems and components has been reached.
3. A periodic safety review is carried out in support of the decision-making process for a lifetime extension.
4. Modification of a nuclear power plant not covered by the existing authorization to operate and therefore requiring a licence modification.
5. The nuclear power plant has a time-unlimited license, but the time of operation is limited by law.

Situation 1 probably describes the scenario most simple to determine and was already clarified through MOP Decision VI/2. If a NPP’s license defines its date of expiration and must thus be renewed or extended, this procedure must be considered an LTE. A similar conclusion can be drawn, if the EIA carried out to permit a reactor covers a certain time period.[24]

Situation 2 occurs, if there is no time-limited license, but certain structures, systems, or components have reached their “design-life”. This means, the period during which a certain facility/component is expected to perform according to technical specifications to which it was produced has been reached. If the respective facility or component is irreplaceable, it may indicate the design-life of the entire nuclear reactor. Its refurbishment or comprehensive requalification can thus imply LTE.[25]

Situation 3 refers to periodical safety reviews (PSRs). Such systematic reassessments of the safety of an existing facility are usually carried out at regular intervals to deal with the cumulative effects of ageing, modifications, operating experience, technical developments, and siting aspects.[26] They can be

[20] Decision VI/2 adopted by the Meeting of the Parties to the Convention on Review of Compliance with the Convention, ECE/MP.EIA/20/Add.1, ECE/MP.EIA/SEA/4Add.1, para 68.
[21] Ibid, para 20.
[22] Ibid, para‘s 21 et seq.
[23] Ibid, para’s 24-33.
[24] Ibid, para 26.
[25] Ibid, para’s 20, 27.
[26] Ibid, Annex I, para 8.

laid down in international safety standards, e.g., by the International Atomic Energy Agency (IAEA) or the European Union.[27] A specific PSR carried out towards the end of the stablished lifetime of a NPP can be carried out in support of a decision-making process, hence indicating LTE.[28]

Situation 4 describes safety upgrades or backfitting of safety systems that are not foreseen in or covered by the original license/authorization to operate. In this case, the necessary modifications also imply LTE.[29]

Finally, *situation 5* also covers situations in which the time limit of a license is not foreseen in the license or authorization itself, but rather defined within a legislative act. Although the relevant procedure in these cases is not an administrative, but a legislative one, it must be regarded as LTE.[30]

The LTE Guidance also touches upon the definition of activities listed in appendix I as well as a major changes to such an activity in cases of LTE, which trigger the application of the Espoo Convention.. While LTE can only be considered an activity if the operation of a plant has previously been terminated,[31] the forms of "major changes" are rather diverse. Relevant changes can include physical works and modifications of large, but also smaller scale in the operating conditions triggered by technical changes or new scientific findings.[32] But also the sheer prolongation of the operating period without any works or modifications as well as multiple minor changes over a certain period can imply a major change.[33] Whether any of these scenarios constitute a major change must be determined on a case-by-case basis, taking into account the precautionary principle. Aspects to be considered within this determination include the increased use of natural resources, the increased production of radioactive waste or spent fuel, increased environmental emission, and changes in the surrounding environment.[34]

After the adoption of the LTE Guidance in 2019, the Espoo IC resumed consideration of the pending cases regarding nuclear reactors all over the UNECE region.[35] The Committee considered that, when determining whether an LTE implied a major change, "all physical works and modifications in the operating conditions should be considered by the competent authority when deciding on the applicability of the Convention. Those should not be limited to works and modifications that altered the design and changed the technology of the production process or normal operation."[36]

[27] International Atomic Energy Agency (IAEA), Periodic Safety Review for Nuclear Power Plants, IAEA Safety Standards Series No. SSG-25 (2013), Council Directive 2009/71/EURATOM of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations, OJ L 2009/172, p. 18; see also ÖKOBÜRO – Alliance of the Austrian Environmental Movement/Resource & Analysis Center "Society and Environment" (RACSE), Lifetime Extension of Nuclear Power Plants – Analysis of legal aspects, June 2020, p. 31.
[28] LTE Guidance, para 31.
[29] Ibid, para 32.
[30] Ibid, para 33.
[31] Ibid, para 39.
[32] Ibid, para's 44 et seq.
[33] Ibid, para's 49 et seq.
[34] Ibid, para 41, Annex II.
[35] Inter alia regarding Belgium, Bulgaria, the Czech Republic, France, the Netherlands, and Spain; see Report of the Implementation Committee on its fifty-first session, ECE/MP.EIA/IC/2021/6, para's 56 et seq.
[36] Report of the Implementation Committee on its fifty-second session, ECE/MP.EIA/IC/2022/2, para's 25.

Besides the scale of modifications, the Espoo IC also considers the number and kind of changes implemented towards long-term operation of the activity as well as investments made.[37] Another aspect considered by the Committee is, whether a comprehensive environmental impact assessment has been required or conducted for the activities prior to issuing relevant original or renewed construction and operation permits. As, in lack of such a prior EIA, full environmental impacts of the respective activities remain partly unknown and their compatibility with current standards could be questioned, this indicates another reason for a potential major change.[38]

This led the Espoo IC to begin Committee initiatives for a further assessment of the relevant cases concerning Bulgaria,[39] Belgium,[40] the Czech Republic[41] and prepare guidance to France to ensure compliance with the Convention.[42]

2.3. Aarhus Convention

2.3.1 Introduction

The Aarhus Convention was signed in the Danish city of Aarhus on 25 June 1998 and entered into force on 30 October 2001. It regulates access to information, public participation in decision-making and access to justice in environmental matters. Of key importance in this context is the public participation requirements with respect to certain activities listed in Annex I of the Convention.Nuclear power plants are listed in Annex I.

Two bodies are designed to ensure implementation and compliance of the contracting Parties: the Aarhus Convention Compliance Committee, which reviews the compliance with the Convention by the contracting Parties (in particular, prepares findings in specific cases); and the Meeting of the Parties to the Aarhus Convention (Aarhus MOP), which considers specific issues of compliance upon a report by the Compliance Committee, including findings in specific cases.[43]

The Aarhus Convention Compliance Committee has the mandate to review cases brought before it concerning the compliance of a Party to the Convention with its obligations. Based upon this review, it issues findings and, where appropriate, recommendations.

Not only the establishment, but also changes or extensions to a project can constitute an Annex I activity requiring public participation according to article 6 of the Convention. In contrast, in several cases,[44] the ACCC has found that in the case of nuclear power plants, lifetime extensions imply a change in their operating conditions and states must thus apply public participation requirements accordingly in line with article 6 (10) of the Convention.

[37] Ibid, para's 26, 35 et seq; Report of the Implementation Committee on its fifty-third session ECE/MP.EIA/IC/2022/4, para's 21 et seq.
[38] Report of the Implementation Committee on its fifty-second session, ECE/MP.EIA/IC/2022/2, para's 26, 35 et seq.
[39] Ibid, para 29.
[40] Ibid, para 41.
[41] Report of the Implementation Committee on its fifty-third session, ECE/MP.EIA/IC/2022/4, para 25.
[42] Report of the Implementation Committee on its fifty-second session, ECE/MP.EIA/IC/2022/2, para 45.
[43] Article 10 Aarhus Convention.
[44] ACCC/C/2014/104 *(Netherlands)*, 21 January 2018, ECE/MP.PP/C.1/2019/3, ACCC/C/2016/143 *(Czechia)* 26 July 2021, ECE/MP.PP/C.1/2021/2.

In the case of projects with potential transboundary impact, the concerned public might be situated outside the territory of the Party of origin. In that case, the Party of origin is responsible to comply with obligations under the Aarhus Convention. The term "concerned public" is to be interpreted broadly and includes natural persons or organisations who are affected or likely to be affected by a project or have an interest in the procedure. Environmental NGOs are members of the concerned public without having to prove their interest.[45]

The rights of the Aarhus Convention are based on three pillars:[46]

- Access to environmental information (articles 4-5)
  Knowledge about the state of our environment is a prerequisite for the public to engage in environmental procedures. Public authorities are therefore required by the Aarhus Convention to make environmental information available to the public upon request.
- Public participation in environmental decision-making (articles 6-8)
  According to the Aarhus Convention, public participation is required above all for the approval of certain projects with significant environmental impacts (especially industrial plants and infrastructure measures).
- Access to justice in environmental matters (article 9)
  To ensure that individuals can effectively assert their rights to access environmental information and to participate in proceedings, the Aarhus Convention provides for legal protection options for individuals and environmental organisations. The aim of the Convention is to grant the public concerned the widest possible access to justice.

2.3.2 Criteria to be met by public participation procedures

Article 6 para 2-9 Aarhus Convention lay down requirements to be met within public participation procedures:[47]

- The public notification of a planned activity must be *adequate, timely and effective*. (para 2)
- *Reasonable timeframe*s need not only be provided for notification issues, but also to allow for the public concerned to become acquainted with the documentation. (para 3)
- Public participation must take place at an early stage, *when all options are open*. (para 4)
- Prospective applicants should identify the public concerned and enter into discussions with them *before applying for a permit*. (para 5)
- The public must have *free access to certain documents*, including a description of the site and its technical characteristics, the significant effects of the proposed activity on the environment and the measures envisaged to reduce them, as well as a non-technical summary and an outline of the main alternatives considered. (para 6)
- The public must have the opportunity to *submit any comments, information, analyses or opinions* that it considers relevant to the proposed activity. (para 7)

[45] Article 2 (5) Aarhus Convention.
[46] UNECE, The Aarhus Convention. An Implementation Guide (2014) p. 19.
[47] For more detailed information see section 6.

- Authorities must *take due account of the outcome* of the public participation procedure in the decision. (para 8)
- When the decision has been taken, the public must be *promptly informed of the decision* in accordance with the appropriate procedures. (para 9)

As a more general provision, the public should have the *right to access information* on the state of the environment, health, and other factors affecting the environment, regardless of proof of special interest. This means that all information relevant to the decision-making that is available to the public authorities must also be made available to the public. This principle applies regardless of quality and regardless of whether the public authority considers the information to be accurate, comprehensive, or up to date. This includes raw data from monitoring stations, even if not yet validated or made available in its final form. This right exists not only with respect to administrative authorities, but also with respect to private persons who perform public functions in the field of environmental protection and who would fall under the broad definition of public authorities under the Aarhus Convention. Public authorities should provide requested information within 1 month, although an extension of this period by another month is permitted in the case of complex requests. The request for environmental information may only be refused on certain grounds, for example, if the request is manifestly abusive or if the public authority does not possess the information requested. Other grounds for refusal exist if disclosure of the information would, for example, have a negative impact on the confidentiality of advice given to public authorities, on business and trade secrets or on the confidentiality of personal data.[48]

2.3.3 Compliance mechanism on UNECE level

The Aarhus Convention Compliance Committee (ACCC) is designed to review the compliance of Parties with the Aarhus Convention.[49] Individuals and NGOs may make use of this mechanism by submitting entries and claiming violations – so-called "communications". The Parties as well as the Secretary of the Aarhus Convention can also act on its own initiative (file submissions or referrals respectively). The ACCC prepares findings and recommendations upon consideration of the communications and submits these to the MOP.[50] The consideration of a complaint by ACCC is a complicated process which may result in a number of outcomes, including:

- The communication may be found inadmissible.
- A non-compliance by a Party in a specific case may be found.
- A general non-compliance by a Party may be found (e.g., resulting from deficient legal framework).
- Advice and assistance provided to the Party to address implementation or compliance issues.
- Recommendations are issued and/or some other measures requested
- Recommendations are made to the MOP regarding appropriate measures to bring the Party to full compliance with the Convention.

[48] UNECE, The Aarhus Convention. An Implementation Guide (2014) p. 78; article 4 Aarhus Convention.
[49] Article 15 Aarhus Convention.
[50] Ibid, para's IV-VI.

The ACCC may issue recommendations directly to the Party if the Party concerned agrees. This is a practice which enables the Party concerned to proactively work with the Committee to come into compliance. Should it do so, the Committee will report to the MOP that the Party concerned has come into compliance, with the result that there will be no MOP decision and resulting follow-up procedure. If the Party concerned does not agree to accept recommendations directly, the Committee´s findings and recommendations will be forwarded to the MOP in the form of a draft decision for its endorsement; thereafter the Party concerned will be subject to a MOP decision and obliged to engage in a follow-up procedure to ensure its implementation of the recommendations.[51]

Every individual or group/NGO is allowed to submit a communication to the ACCC, also concerning a Party outside of its country of residence, if the concerned state is Party to the Convention. In practice, communications to the ACCC are often dealt with only if the communicant has "sufficiently used"[52] all legal remedies on the national level. If legal remedies are available on national level and have not been exhausted, the communication may be found inadmissible, unless there is a justification why they have not been used (e.g., if no remedies were available or they were prohibitively expensive or unreasonably prolonged).[53] Communicants do not need to be represented by a lawyer in proceedings before the Committee, though this is encouraged, as experience has shown that a lawyer's involvement has resulted in better, faster outcomes.

2.4. Relevant Aarhus case-law

2.4.1 Borssele (Netherlands)[54]

The ACCC stated that the Netherlands was non-compliant with the Convention because they did not carry out proper public participation according to article 6 (10) of the Convention for the lifetime extension of a nuclear power plant situated in Borssele.

The ACCC concluded: "The Committee considers that the permitted duration of an activity is clearly an operating condition for that activity, and an important one at that. Accordingly, any change to the permitted duration of an activity, be it a reduction or an extension, is a reconsideration or update of that activity's operating conditions."[55]

According to the ACCC it is "inconceivable that the operation of a nuclear power plant could be extended from 40 years to 60 years without the potential for significant environmental effects."[56] The Committee thus states that it was appropriate and required, to apply article 6 (2) to (9), to the 2013 decision extending the licence for the Borssele nuclear power plant. Thus, it clearly stated that nuclear lifetime extensions have potential environmental effects and require an appropriate public participation procedure.

Prior to making a covenant with the operator, which included compensation payments in case of a closure of the reactor before 2033, the Dutch government would have had to conduct a public

[51] Ibid, para XII.
[52] UNECE, Guide to the Aarhus Convention Compliance Committee (2019) para's 116-120, 242 et seq.
[53] Ibid.
[54] ACCC/C/2014/104 *(Netherlands)*, 21 January 2018, ECE/MP.PP/C.1/2019/3.
[55] Ibid, para 65.
[56] Ibid, para 71.

participation procedure. The authorities "must as a minimum provide the public concerned with access to the information listed in subparagraphs (a)-(f) of [article 6(6)]"[57] and would have had to make information on the environmental effects of the LTE available to the public concerned.

The Netherlands must now take the necessary legislative, regulatory and administrative measures to ensure that the provisions of paragraphs 2 to 9 of article 6 will be applied when it comes to the consideration of updates of nuclear reactors.[58] This means that for every upcoming LTE decision, this decision needs to be based upon public participation that concerns the environmental impacts of the project.

2.4.2 Dukovany (Czechia)[59]

In the case of a proposed lifetime extension of nuclear power plant Dukovany, the ACCC found Czechia had failed to comply with article 6 (2) to (10) and article 9 (2) of the Aarhus Convention. The operating license for the thirty-year-old Unit 1 expired at the end of 2015, while the one for Unit 2 ran until 2016. The competent authority in Czechia subsequently issued permits to extend the operation of the reactors indefinitely, while still being subject to periodic safety reviews every 10 years.[60]

In line with its findings in the Borssele case, the Committee reiterated "that the permitted duration of an activity is clearly an operating condition for that activity, and an important one at that. Accordingly, any change to the permitted duration of an activity is a reconsideration or update of that activity's operating conditions. It follows that any decision permitting the first reactor of Dukovany NPP to operate beyond 31 March 2016 amounted to an update of the NPP's operating conditions."[61] The Committee found that by not providing for public participation meeting the requirements of article 6 (2) to (9) in the decision-making to grant the first reactor of Dukovany NPP an indefinite operating permit, the Czechia failed to comply with article 6 (10) of the Convention.[62]

With regards to the periodic safety reviews to be conducted for the reactors, the Committee stated that because of the "regulatory review" stage, a PSR is a "reconsideration" of the NPP's operating conditions within the meaning of article 6 (10) of the Convention.[63] Czech law does not include a public participation opportunity for periodic safety reviews. Thus, by establishing a legal framework that did not provide for public participation meeting the requirements of article 6 (2) to (9) in each of the 10-year periodic safety reviews for Dukovany NPP, Czechia failed to comply with article 6 (10) of the Convention.[64]

With regards to a possible violation of article 9 (2) of the Convention, the Committee stated the following: as the permit for indefinite operation for the first reactor of Dukovany NPP and the periodic safety reviews fall under the scope of article 6 of the Convention, Czechia must provide access to a review procedure to challenge the substantive or procedural legality of those decisions in accordance with article 9 (2) of the Convention. Since the legal framework did not offer environmental NGOs the

[57] Ibid, para 85.
[58] Ibid, para 89.
[59] ACCC/C/2016/143 *(Czechia)*, 26 July 2021, ECE/MP.PP/C.1/2021/2.
[60] Ibid, para 32, 39, 40.
[61] Ibid, para 100.
[62] Ibid, para 108.
[63] Ibid, para 123.
[64] Ibid, para 124.

opportunity to challenge the legality of decisions, acts and omissions under the 1997 and 2016 Atomic Acts, Czechia fails to comply with article 9 (2) of the Aarhus Convention.[65]

Thus, Czechia must now take the necessary legislative, regulatory, administrative, or other measures to ensure that permits issued under the 1997 or 2016 Atomic Act are reconsidered in light of article 6 (10) of the Convention and the provisions of article 6 (2) to (9) are applied. This includes, but is not limited to, the reconsideration of the duration of the permit or the 10-year periodic safety reviews.[66] The committee also stated that Czechia should take measures to ensure that "members of the public concerned meeting the requirements of article 9 (2), including environmental NGOs, have access to a review procedure to challenge the legality of decisions, acts and omissions under the 1997 or 2016 Atomic Act, or any subsequent legislation, that are subject to the provisions of article 6 of the Convention."[67]

2.4.3 C-107 (Ireland)[68]

In another ACCC "landmark" case, the Committee had to consider the extension of the duration of a quarry in Ireland. The Committee found that, by failing to provide opportunities for the public to participate in the decision-making on a 2013 permit to extend the duration of a quarry Ireland by five years, the Irish authorities had failed to comply with article 6 (10) of the Convention. Moreover, the Committee found that, by providing mechanisms through which permits for activities subject to article 6 of the Convention may be extended for a period of up to five years without any opportunity for the public to participate in the decision to grant the extension, Ireland failed to comply with article 6 (10) of the Convention.[69]

The Committee also reiterated its legal opinion that "the permitted duration of an activity is clearly an operating condition for that activity, and an important one at that. Accordingly, any change to the permitted duration of an activity, be it a reduction or an extension, is a reconsideration or update of that activity's operating conditions."[70] The extension of the duration of a quarry is thus to be considered a reconsideration or update of the operating conditions of the quarrying activity within the meaning of article 6 (10) of the Convention. The Committee also stated that an extension by five years cannot be considered minimal.[71] Even though there had been assessment procedures in 1997, 2004 and 2010 another public participation process should have been conducted with the proposed extension in 2013.[72]

Ireland was required to "take the necessary legislative measures to ensure that permits for activities subject to article 6 of the Convention cannot be extended, except for a minimal duration, without ensuring opportunities for the public to participate in the decision to grant that extension in accordance with article 6 (2) to (9) of the Convention."[73]

2.4.4. Pending cases

[65] Ibid, para 125, 140.
[66] Ibid, para 144 (a).
[67] Ibid, para 144 (b).
[68] ACCC/C/2013/107 *(Ireland)*, 26 August 2019, ECE/MP.PP/C.1/2019/9.
[69] Ibid, para 94.
[70] Ibid, para 79.
[71] Ibid, para 84.
[72] Ibid, para 86.
[73] Ibid, para 95 (a).

Currently, two more cases concerning lifetime extensions of nuclear power plants are pending before the ACCC. One of them is related to an alleged violation of article 6 of the Convention in decision-making in connection with the lifetime extension of the Almaraz nuclear power plant located in Spain.[74] The other one concerns Netherlands alleged non-compliance with article 6 (10) in conjunction with article 6 (1) of the Convention in connection with the failure to provide for appropriate public participation opportunities in the decision-making on changes to the licences for (again) the Borssele nuclear power plant.[75]

2.5. *Excursus*: EU EIA Directive incl. ECJ case-law

Although not applicable to all Parties to the Aarhus and Espoo Conventions, the EIA Directive[76] is another important legal tool to regulate transboundary impact assessments and public participation within the European Union.[77] As it aims at implementing the provisions of both UNECE Conventions at EU level, the relevant requirements are applicable for EU Member States from two perspectives: as provisions of international law as well as EU framework provisions that can get directly applicable on national level if they are not accordingly transposed into the national law of EU Member States. Although the relevant provisions of, e.g., the Aarhus Convention themselves have no direct effect in EU law, Member States must ensure their effective application in conjunction with article 47 of the Charter of Fundamental Rights of the European Union (CFEU)[78].

National courts must, therefore, fully interpret the national procedural rules in accordance with both the objectives of the Conventions and the objective of effective judicial protection of the rights conferred by EU law. On the other hand, if such a compliant interpretation is impossible, courts must disapply, the respective provision of national procedural that is contrary to the obligations set out in the Aarhus or Espoo Convention and embodied in the EIA Directive. National courts in EU Member States are required to apply rules of EU law to give full effect to those rules, if necessary, refusing of their own motion to apply any conflicting provision of national legislation. It is not necessary to request or await the prior setting aside of such provision by legislative or other constitutional means.[79]

When the European Court of Justice (ECJ) first had to deal with the question of lifetime extension regarding the Belgian NPP Doel, it stressed that the EIA Directive is intended to take account of the provisions of the Aarhus Convention as well as the Espoo Convention.[80] As a result, the Court did not assess compliance with the relevant provisions of the Convention, but rather with the EIA Directive as such. Measures such as those at issue in the main proceedings form part of a project that is likely to have significant effects on the environment in another Member State, and that project must undergo

[74] ACCC/C/2017/159 *(Spain)*.
[75] ACCC/C/2021/187 *(Netherlands)*.
[76] Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment, OJ 2012 L 26, 1.
[77] Ibid, recitals 15, 18-21.
[78] ECJ 20 December 2017, *Protect*, C-644/15, ECLI:EU:C:2017:987, para's 45, 52.
[79] ECJ 8 March 2011, *Lesoochranárske zoskupenie*, C-240/09, ECLI:EU:C:2011:125, para 52; ECJ 20 December 2017, *Protect*, C-644/15, ECLI:EU:C:2017:987, para's 54 et seq.
[80] ECJ 29 July 2019, *Inter-Environnement Wallonie and Bond Beter Leefmilieu Vlaanderen*, C-411/17, ECLI:EU:C:2019:622, para's 160-166.

an assessment procedure of its transboundary effects in accordance with Article 7 of the EIA Directive, which takes account of the requirements of the Espoo Convention, as indicated by recital 15 of the EIA Directive.

Regarding the classification of the LTE as "major change", the ECJ noted:

> "*The measures at issue in the main proceedings, which have the effect of extending, by a significant period of 10 years, the duration of consents to produce electricity for industrial purposes with respect to both power stations in question, which had up until then been limited to 40 years by the Law of 31 January 2003, combined with major renovation works necessary due to the ageing of those power stations and the obligation to bring them into line with safety standards, must be found to be of a scale that is comparable, in terms of the risk of environmental effects, to that when those power stations were first put into service.*"[81]

The court thus considered the scale of upgrading work done, but also the investments necessary to do so.[82] But also apart from these factors, there can scenarios of major change to existing activities: In a recent case regarding the lifetime extension of a lignite quarry in Poland, Advocate General Pikamäe noted that the timely aspect itself can induce a relevant change or extension leading to the applicability of the EIA Directive and thus the provisions to implement the Aarhus and Espoo Conventions.[83]

[81] Ibid, para 79.
[82] See also ibid, para 68.
[83] Opinion of Advocate General Pikamäe delivered on 3 February 2022, *Mine de Turów*, C-121/21, ECLI:EU:C:2022:74, para 65.

3. Implications for Nuclear Regulators or other authorities taking LTE decisions

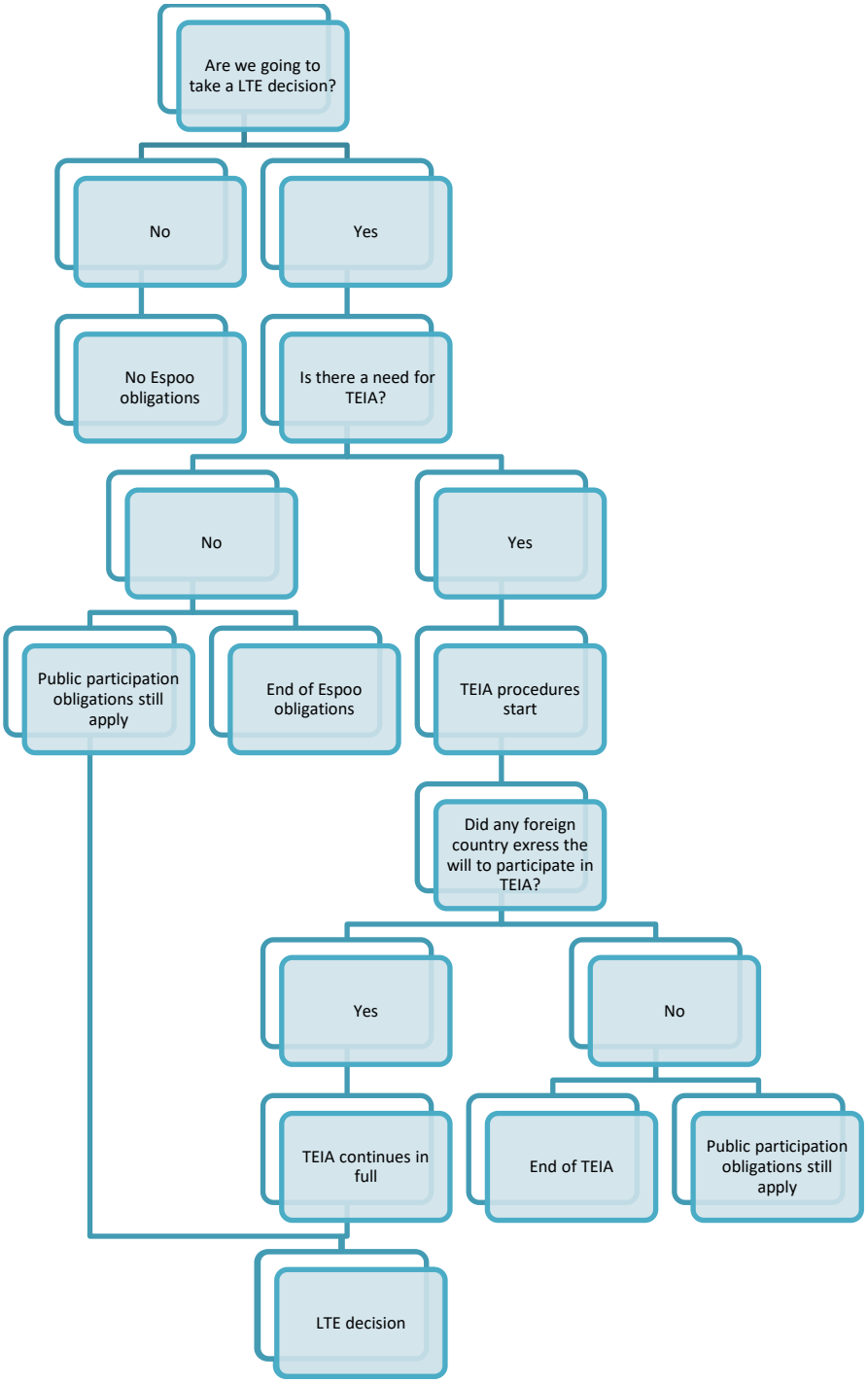
3.1. Implications within transboundary environmental assessments

Key EIA-related implications include:

- **to assess whether you are going take an LTE decision bearing in mind Espoo Convention framework;**
- **to assess, in consultation with your country's focal point for the Espoo Convention, the need for transboundary environmental impact assessment;**
- **to participate in (or take responsibility for) transboundary environmental impact assessment procedure, should it take place and at every relevant stage;**
- **to take due account of the outcomes of the TEIA, should it be carried out.**

Key participation requirements within TEIA:

- **public participation is a joint responsibility of the Party of origin and the affected country(s), which implies the need for close cooperation between the Parties;**
- **the public in both your country and the affected Party/Parties must be notified and granted access to EIA documentation, which implies the need for translation;**
- **the public in the affected Party/Parties must be given a possibility to express its comments or objections;**
- **comments from the public must be duly taken into account when the final decision is taken;**
- **the public shall be notified of the final decision and has access to it.**


Are we going to take a LTE decision?
No
Yes
No Espoo obligations
Is there a need for TEIA?
No
Yes
Public participation obligations still apply
End of Espoo obligations
TEIA procedures start
Did any foreign country exress the will to participate in TEIA?
Yes
No
TEIA continues in full
End of TEIA
Public participation obligations still apply
LTE decision

3.1.1. Assessment requirements

The **first practical question** (Q1) to ask is "Are we going to take a LTE decision?". The answer to this question requires developing clear understanding of:

(a) the situations which may fall under situations of lifetime extension and then assessing whether the situation in your country may or should be considered as LTE;
(b) the decision-making process related to LTE in order to identify its key stages and related decisions;
(c) the views of other potentially affected stakeholders on points (a) and (b) above, including views of your country's Espoo focal point, other countries and the public.

Q1 (a). The lifecycle of a nuclear power plant does not necessarily include a lifetime extension84. As discussed above, "lifetime extension" is a term without an established legal definition under international law[85] and is still evolving. To fully understand what this term means and the situations it can encompass see section 2.2. of this guide and Section II of the LTE Guidance. The next step is to assess whether the situation in your country may or should be considered as LTE. Legally speaking, this assessment will help you define whether the situation you face may be considered a "proposed activity" under the Espoo Convention.

Q1 (b). In the context of the Espoo Convention, the concept of LTE is closely linked to decision-making process.[86] For this reason, understanding the decision-making process will help reach reasoned conclusion on whether possible LTE situation is a proposed activity under the Convention. It is also of outmost importance to understand what should be considered the final decision on LTE in your country and understand all preceding stages of decision-making. This will allow to properly fit the transboundary EIA stage into the decision-making process.

It is an easy situation if your national legal framework or practice clearly identifies LTE decisions and the procedure leading to it.

However, while some countries have established decision or authorization procedures related to the lifetime extension of their nuclear power plants, other Parties do not have these procedures.[87] The fact you cannot clearly identify a decision (or decision-making procedure) to extend the lifetime of a nuclear reactor in your country does not mean there's no such decision. There may be a decision or series of decisions which could be considered an LTE decision for the purpose of the Espoo Convention.

In general, the Parties to the Espoo Convention cannot avoid their obligations by merely applying a tacit consent approach (e.g, by excluding relevant activities from any authorization framework) to proposed activities covered by Annex I to the convention. Similarly to the EIA directive, a proposed activity must be subject to a permitting procedure under the Espoo Convention.[88]

[84] LTE Guidance, para 85.
[85] Ibid, para 21.
[86] Ibid, para 92.
[87] Ibid, para 85.
[88] For more discussion see *ÖKOBÜRO/RACSE*, Lifetime extension of nuclear power plants – Analysis of legal aspects (2020), p. 22.

LTE seems to be a very special "proposed activity" under the Espoo Convention given the very nature of LTE as an activity: unlike any other proposed activity listed in Annex I of the Convention, LTE definition seems to rely, in some situations, on related decision-making. The LTE Guidance includes a provision that "if such a decision is identified" (and other necessary criteria met), then TEIA must be carried out.[89] This, however, shall not be read as a green light to bypass the obligation to ensure that LTE is subject to a decision-making process. Box 1 below illustrates how this twinning nature of LTE (technical situation + decision = "proposed activity") may look in practice in relation to the four situations (see Q1(a) above and section 2.2. of this guide) and applicable decision-making.

Box 1. Possible practical scenarios of LTE as a proposed activity under the Espoo Convention.

Scenario 1. LTE is clearly recognized in the nuclear framework (Ukrainian scenario)

The Ukrainian scenario embraces four (out of five) situations, described in the LTE guidance, at the same time.

In Ukraine, LTE ("beyond project period" operation) is a clearly defined term in the legally applicable regulations[90] by national nuclear safety authority. The key element of this scenario is that all the nuclear reactors in Ukraine have a clear length of the operation period set by designing company and reflected in relevant construction (technical) documentation. The relevant law[91] clearly acknowledges the decision-making framework for authorizing LTE.

Rivne NPP (reactors 1 and 2) situation is quite illustrative. First, as of 2010 the license for operation of units 1 and 2 was about to expire. Second, design-life ("project period" in Ukrainian terminology) was about to expire. Similarly, the Soviet-designed VVER-440/213 plants in operation in the Czech Republic, Hungary and the Slovak Republic were originally considered to have a design life of only 30 years[92]. Third, PSR was used to support decision-making. Fourth, a range of safety upgrades were required to be carried out by operator to apply for a new license (formally, it is an *amendment* to the existing license required).

In this scenario LTE is a proposed activity under the Espoo Convention for both considerations: it is recognized technically and is subject to a national decision-making procedure.

Scenario 2. Design life recognized and extension decision taken

In Belgium, the relevant law explicitly set the operation period for nuclear reactors of 40 years after the initial license was issued for an unlimited time. The operation period was extended by 10 years by relevant amendments in the law and a decision of the government. Therefore, it fits situation 5 of the LTE Guidance.[93]

[89] LTE Guidance, para 89.
[90] Available at https://zakon.rada.gov.ua/laws/show/z1587-04#Text (12 August 2022).
[91] Available at https://zakon.rada.gov.ua/laws/show/2861-15#Text (12 August 2022).
[92] Organisation for Economic Co-operation and Development (OECD), Nuclear Power Plant Life Management and Longer-term Operation (2006) p. 23.
[93] LTE Guidance, para 33.

In addition, the European Court of Justice noted[94] that this extension was combined with major renovation works necessary due to the ageing of those power stations and the obligation to bring them into line with safety standards, must be found to be of a scale that is comparable, in terms of the risk of environmental effects, to that when those power stations were first put into service. This may be sufficient evidence the Belgian case also fits the situation 2 of the LTE guidance.[95]

In this scenario LTE is a proposed activity under the Espoo Convention for both considerations again: design lifetime recognized, and its extension was subject to a specific national decision-making. It was ECJ who added, by adopting its judgment, another aspect of the technical element: major renovation work.

Scenario 3. No design lifetime recognized and no explicit decision taken to extend it

One of the most difficult scenarios is when no design lifetime recognized at all and, therefore, no explicit decision can be identified. France and Switzerland are two of such countries.

In France, the initial licence for nuclear power reactor operation in France is granted without a specific term[96]. Further operation of nuclear reactors is subject to PSRs only.

The initial design hypothesis for certain equipment, however, is 40 years. In addition, the French nuclear authority (ASN) has issued several documents regarding the operation of nuclear power reactors past 40 years[97]. This may be considered cumulatively a recognition of design lifetime.

Similarly, in Switzerland there is no requirement for licence or specific authorisation for long-term operation (a term used within IAEA framework). The operation of a NPP beyond 40 years demands a proof of safety for LTO, in addition to the PSR.[98]

This, altogether, probably means that these scenarios fall under situation 3 of the LTE guidance. Another possibility would be that the required upgrades or adaptations lead to measures not covered by the operating license, leading to a scenario which falls under situation 4. Therefore, it needs to be assessed closely within the relevant decision-making process and nuclear safety framework.

Scenario 4. Design lifetime recognized but unlimited license for operation

Czechia is one of the countries where reactor's design life is recognized (initially set by designing company) but no time limit is set on its operation as long as the reactor continues to meet its safety obligations subject to continuous safety assessment, a special safety assessment and PSRs, among

[94] ECJ 29 July 2019, *Inter-Environnement Wallonie and Bond Beter Leefmilieu Vlaanderen*, C-411/17, ECLI:EU:C:2019:622, para 79.
[95] LTE Guidance, para 27.
[96] Organisation for Economic Co-operation and Development (OECD), Legal Frameworks for Long-Term Operation of Nuclear Power Reactors (2019), p. 71.
[97] Ibid, p. 74.
[98] Ibid, p. 133.

other requirements[99]. Therefore, there is no specific administrative decision issued to authorize any further operation of the nuclear reactor at a given time point.[100]

This looks like situations 2 and 3, as referred to in the LTE guidance. What makes it different from scenario 3 above is that there was an initially set design lifetime. This gives grounds to conclude that any operation beyond that time should be considered an LTE and the PSR process a decision-making process.

In Sweden, the initial licences for NPPs are also granted with an indefinite term. The operation of a reactor is allowed if the licensee meets the requirements set by the applicable laws, government ordinances, regulation of the nuclear regulatory authority and conditions provided by the initial licence.[101]

A reassessment is necessary in case of modifications to the nuclear power reactor requiring an amendment to the initial licence or a new licence (e.g., if the thermal effect at a nuclear power reactor is increased).[102] In this case, the scenario would fall under situation 4.

From the perspective of the Espoo Convention, it is important to understand what **is "the final" decision.** Why? Because if you need to carry out TEIA, it must be done as soon as possible and before you take the final decision.[103]

A final decision in the sense of the Convention is typically related to the initial permitting of the proposed activity or an authorization to carry out major changes in the operation of the nuclear power plant.[104] It may be different for different activities, so it needs be understood in the context of LTE. It could be a license renewal, or new license issued by nuclear regulator or even a legislative act by a parliament or government.[105]

Note, what counts when determining what is a final decision is not the title (for example, "licence" or "permit") but rather whether the authorizing function regarding the rights or duties of the operator is equivalent to that of a licence, a consent or a permit.[106] In the context of a nuclear power plant, findings related to daily operational routines are not to be considered decisions within the meaning of the Convention. In the same way, a specific safety review, such as a periodic safety review due to its nature and purpose, is not a decision within the meaning of the Convention either.[107] However, they are

[99] Ibid, p.28.
[100] *Note*: Before the first extension of reactor units 1-4 at the Czech NPP Dukovany, the permits still had a time limit, which led to the assumption of situation 1 (Report of the Implementation Committee on its fifty-third session ECE/MP.EIA/IC/2022/4, para 20.) Due to legislative changes, the new permits, however, were issued for an unlimited time.
[101] Ibid, p. 127.
[102] Ibid, p. 130.
[103] LTE Guidance, para's 92, 97.
[104] Ibid, para 87.
[105] Ibid, para's 89-103.
[106] Ibid, para 90.
[107] Ibid, para 93.

reconsiderations under 6 (10) Aarhus Convention[108] and may be followed by an authorization, which may meet the criteria of a "decision" according to the Espoo Convention.[109]

However, they may be followed by an authorization, which may meet the criteria of a "decision" according to the Espoo Convention.[110]

Q1 (c). No matter what your assessment on points (a) and (b) above is, it is useful to consult your national focal point for the Espoo Convention (usually, the ministry of environment).

The national focal point has strong experience and capacity in applying the Espoo Convention, understanding international prior practice and case law. Having a consultation meeting and developing a common view on the LTE decision-making will help you avoid any mistakes or wrong conclusions, assess the risks and best ways to approach uncertainties, as well prevent unnecessary delays in the process of LTE.

Your national Espoo Convention focal point can help getting preliminary information from or establish informal contacts with colleagues from other countries. Such initial contacts may be very useful.[111]

Lastly, the public in your country, in particular environmental groups, may have an opinion or position regarding the LTE procedures in your country. They may also bring important views on the key issues, such as possible interest of local population or the public in other countries. Having initial contacts with your public will certainly help to develop a more solid and reliable position on the first question: "Are we going to take an LTE decision at all?".

Only a clear "No" answer to the first practical question shall mean you may stop thinking about Espoo Convention. If your answer is "Yes" or "May be", you need to consider the second practical question.

The **second practical question** (Q2) is "Do we need to organize TEIA before taking LTE decision?".

The key criteria to answer this question are listed in the Article 3(1) of the Espoo Convention. When put in questions, these criteria are:[112]

a) What are the possible "adverse impacts" of the lifetime extension?
b) Is the lifetime extension "likely" to cause these adverse environmental impacts?
c) Are these likely adverse environmental impacts "significant"?
d) Are these likely significant adverse environmental impacts "transboundary" and which Parties would be affected?

Before going into each of these criteria, it is important to make several general observations.

LTE in any case falls under "nuclear reactors" activity listed in Appendix I to the Espoo Convention. Therefore, Espoo Convention's "nuclear" case law and practice must be closely considered. From this perspective, LTE should be considered to have likely significant adverse transboundary impact "by default", i.e. unless it can be excluded on the basis of EIA documentation. This reflects precautionary

[108] ACCC/C/2016/143 *(Czechia)*, 26 July 2021, ECE/MP.PP/C.1/2021/2, para 118.
[109] Ibid, para 95.
[110] Ibid, para 95.
[111] Ibid, para's 61, 63.
[112] Ibid, para 54.

approach since nuclear energy-related activities by their nature can lead to significant transboundary and long-range adverse environmental impacts and imply special challenges[113].

When looking for answers to questions (a)-(d) it is extremely important to consult your Espoo Convention national focal point, especially when the preliminary views of other Parties are different than yours.

Q2 (a): "adverse impacts". Extended lifetime of a nuclear power plant has impacts that are similar to those of a new power plant.[114] These include operational impacts and accidents-related impacts, including major accidents (p.59). Therefore, the simple and safe answer to question Q2(a) is always "similar to a new nuclear power plant, including major accident impacts".

Q2(b): "likely". The term "likely" refers to whether the adverse impact is likely to occur, rather than whether that impact is likely to be significant. It therefore covers any scenario in which significant adverse transboundary impacts cannot be excluded by the competent authorities.[115] The risk of major accidents or disasters should be considered based on precautionary principle and available scientific evidence.[116] The simple and safe answer to question Q2(b) is always "yes".

Q2(c): "significant". This term is not defined in the Espoo Convention, but criteria are listed in Annex III for consideration. Parties are recommended to apply a systematic evaluation of potential significant adverse transboundary impacts of low likelihood, including from accidents beyond the design basis, when assessing the impacts of nuclear power plants.[117] Since LTE impacts are similar, this advice is equally important for LTE. Given the nature of LTE and the need to consider major accidents, the simple and safe answer to question Q2(c) is always "yes".

Q2(d): "transboundary". The term "transboundary" is clearly defined in the Espoo Convention (article 1 (viii)). To make it simple, it is any effect by an activity located in one country on the environment in another country or globally.

The transboundary nature of an impact will generally vary depending on both the impact itself and the location of the nuclear power plant in question.[118] Not all impacts may be relevant for another country, but some are (like those from accidents). The location of a nuclear power plant is a factor to consider (e.g., when it is close an international border or river), as well as changes in the environment that occurred since the time the power plant was put into operation.[119]

There is no simple answer to question Q2(d). It will usually include a list of countries, which may be affected and specific impacts relevant for them. This, in turn, will scope your notification process (which countries to notify) in the TEIA procedure.[120]

[113] OECD, Legal Frameworks for Long-Term Operation of Nuclear Power Reactors (2019), p. 42.
[114] LTE Guidance, para 58.
[115] Ibid, para 64.
[116] Ibid, para's 65-67.
[117] Ibid, para 70.
[118] Ibid, para 73.
[119] Ibid, para 74.
[120] Ibid, para 76.

Now, if the overall answers to the main two questions (Q1 and Q2) are "yes" or "maybe", you need to start transboundary EIA procedure. If the answer to any of the two main questions is a clear "No", you may forget about the Espoo Convention and proceed with your national process/routine.

If TEIA is to be carried out, we came to the **last practical question (Q4): "How do we organize TEIA?"**.

It is not the purpose of this guide to advise on transboundary EIA procedure under the Espoo Convention. There are several guidance materials, which can help you develop a plan for your LTE case. However, several considerations are important to make.

First, it needs to be assessed how to fit TEIA in LTE the decision-making process, both practically and legally. This is especially the case if you think that under your national legislation, no EIA is needed. There's one red line: TEIA must be carried out before the final decision on LTE is taken.

Second, there must be a clear understanding how you are going to take into account the outcomes of the TEIA (i.e. comments from other countries and the public). There needs to be a formal way to integrate the results of the transboundary consultations and public comments into the decision-making process.

Third, the fact you decided to "start" transboundary EIA does not mean it will be carried out. TEIA starts with a notification sent to other countries, and in case of nuclear projects such notification will probably need be sent to a wide range of possibly affected Parties.[121] However, if no Party expresses the wish to participate in transboundary EIA, this will effectively put TEIA into end.

Fourth, it may well be the case that the authority taking the LTE decision will not be the one in charge of organizing the TEIA. This depends on a particular framework in each country and no general advice may be given. For example, if LTE decision is taken by a nuclear regulator, but TEIA is organized by the Espoo Convention national focal point, it is highly recommended that the nuclear regulator participates in the whole process. It may happen that the nuclear regulator will need to organize TEIA itself, then participation of the Espoo Convention national focal point will be needed as well. Internal coordination will help to reduce risks and time.

Lastly, enough time needs to be allocated for TEIA. This means the decision-making authority should start considering the need for TEIA as soon as possible. As such, TEIA may take from several months to several years. Careful planning and cooperation with other countries can significantly reduce the time needed for TEIA.

3.1.2. Participation requirements

The guiding materials for the Espoo Convention, including general guidance on application of the Espoo Convention[122], on public participation[123], and Good Practice Recommendations on the Application of

[121] Ibid, para 79.
[122] UNECE, Guidance on the Practical Application of the Espoo Convention, ECE/MP.EIA/8 (2006).
[123] UNECE, Guidance on Public Participation in Environmental Impact Assessment in a Transboundary Context (2006).

the Convention to Nuclear Energy-related Activities[124] provide sufficient guidance on how to ensure proper public participation during TEIA.

Here we want to bring your attention to key elements only. Public participation is a joint responsibility of the Party of origin and the affected Party/Parties, which entails the need for close cooperation between the Parties. No Party of origin may ensure full public participation of the public on the territory of another state. It may, however, comply with its own obligations (should the affected Party refuse to engage or cooperate) by publishing the notification, translating and providing access to EIA documentation (especially on-line), directly accepting written comments, etc.

The public in both your country and the affected Party/Parties must be notified and granted access to EIA documentation, which raises the need for translation. Ideally, the notification in a foreign country should be done by its own government. Access to EIA documentation may be easily organized online, but effective physical access to affected communities can only be arranged by the affected Party.

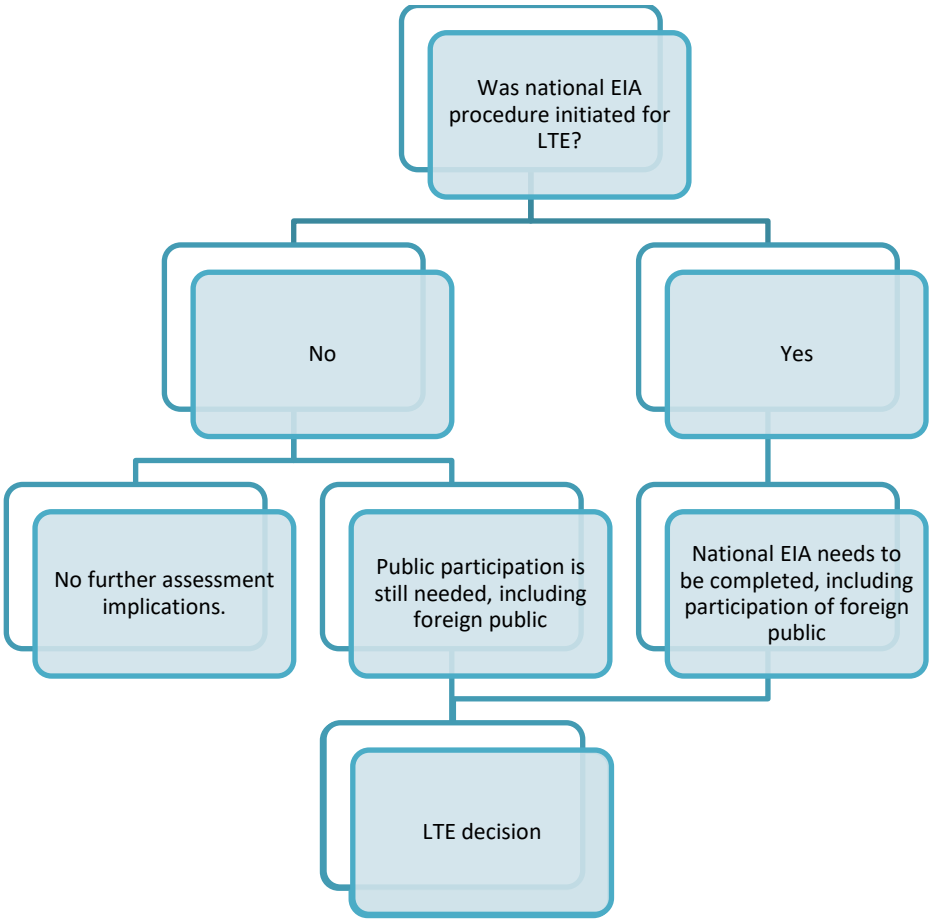
The public in the affected Party/Parties must be given a possibility to express its comments or objections. In an ideal situation, this would mean you need to establish close cooperation with Espoo Convention focal points in the affected Parties, who will take responsibility for organizing a hearing, if necessary, receiving comments and transferring them to you.

Comments from the public must be duly considered when the final decision is taken, and the public shall be notified of the final decision and have access to it. There needs to be a proper consideration of such comments, including a summary and reasoning of how they were or were not considered.

3.2. Implications if no transboundary environmental assessment is carried out

Chart 2. Key possible implications if no TEIA is carried out for LTE

[124] UNECE, Good Practice Recommendations on the Application of the Espoo Convention to Nuclear Energy-related Activities (2017).



Key assessment-related implications if no TEIA is carried out for LTE:

- **National EIA will need to be continued and completed, if it was initiated;**
- **If no national EIA was triggered, no further specific environmental assessment implications exist.**

Key participation-related implications if no TEIA is carried for LTE:

- **Public participation is needed within national EIA procedure, including for the public from abroad;**
- **Public participation is needed within LTE decision-making, even if no national EIA is carried out; this includes the need to ensure that foreign public has opportunities to participate.**

This section is not based on LTE guidance. It, however, offers recommendations for situations which may result from the application of the LTE guidance. The assumption behind this section is that (a) LTE decision is going to be taken and (b) no TEIA will be carried out (for reasons addressed in section 3.1 above).

3.2.1. Assessment requirements

As indicated in section 3.1 above (see e.g. Chart 1), there could be several reasons (and stages) when a conclusion will be reached that no TEIA will be carried out to support LTE decision-making procedure.

It is a rare situation that TEIA is a stand-alone procedure. It is common that TEIA procedure, if initiated, is part of the national EIA procedure. The fact that TEIA was stopped (e.g. if no country expressed the interest to participate) does not mean that the national EIA will be abandoned. Quite to the contrary: national EIA procedure will need to be continued and completed, if it was initiated.

If no national EIA was triggered, no further specific environmental assessment implications exist. However, it is a usual practice that some environmental considerations will still be part of the LTE decision-making process (particularly safety-related factors). This is the case in many countries. However, this is a different, nuclear safety framework and shall not be understood or interpreted in the context of environmental impact assessment. Therefore, if no national EIA procedure was triggered (and TEIA procedure is carried out), no further assessment-related implications exist.

3.2.2. Participation requirements

In a situation when no TEIA is carried out while LTE decision is going to be taken, public participation requirements still apply.

This may include two scenarios: (a) when a national EIA procedure is carried out and (b) when no national EIA procedure is carried out, but LTE decision-making is going on. In both scenarios, there is a need to ensure public participation in line with all relevant international and national standards, such as the Aarhus Convention requirements. The only difference is that under the first scenario public participation will be organized within a national EIA procedure, while under the second scenario it will be organized within a national nuclear decision-making framework (LTE decision-making). A practical implication will be that the authority responsible for public participation arrangement is likely to be different.

It is important to understand that the Aarhus Convention requires that, whether in a domestic or transboundary context, the ultimate responsibility for ensuring that the public participation procedure complies with the requirements of article 6 of the Aarhus Convention lies with the competent authorities of the Party of origin.[125] This is reinforced with the non-discrimination requirement of the article 3 para 9 of the Aarhus Convention.

In short, the public concerned in a foreign country must be given opportunities to participate, even if no TEIA or EIA is carried out. In addition, nuclear activities are considered "ultrahazardous",[126] which implies further obligations for you, in particular on notification.

Arranging public participation for the foreign public will at least require effective notification, providing access to relevant documentation, reasonable timeframes for submitting comments, due account of comments and notification of the final decision.

If no cooperation is arranged with a country of residence of members of the public concerned, arranging public participation will be a challenge for you. It is, therefore, recommended to contact Aarhus Convention focal points in your country and foreign country/countries, who may assist you.

[125] ACCC/C/2010/50 *(Czechia)*, 2 October 2012, ECE/MP.PP/C.1/2012/11, para 69.
[126] Ibid, para 74.

Effective notification in particular means to ensure that all those who potentially could be concerned, including the public outside the territory of your country, have a reasonable chance to learn about the proposed activity. This may include, inter alia, publishing announcements in the popular newspapers and by other means customarily used in the affected Parties, as well as by exploring possibilities for using more dynamic forms of communication (e.g., through social media)[127].

Translating the relevant documentation is a good practice but is not requirement under the Aarhus Convention. Providing translation (in particular, EIA documentation) in relevant language(-s) is, however, highly recommended to avoid misunderstandings and ensure cooperative spirit during hearings, or written exchanges with the public.[128]

[127] Ibid, para 72.
[128] See, e.g. Maastricht Recommendations on Promoting Effective Public Participation in Decision-making in Environmental Matters prepared under the Aarhus Convention (2015) ECE/MP.PP/10, ECE/MP.EIA/SEA/5.

4. Implications for Espoo focal points (Party of origin)

- **Raise awareness about the LTE guidance before any real situation comes up;**
- **Be ready to cooperate with nuclear regulators, operating companies, civil society, and other stakeholders;**
- **Be proactive, especially if you become aware of possible LTE situations in your country.**

Espoo Convention national focal points play a crucial role in facilitating practical application of the Espoo Convention. They keep the institutional memory and possess relevant knowledge of the Espoo Convention mechanisms and practice. They know and cooperate with colleagues from other countries, as well as the secretariat of the Convention.

If you are a national Espoo Convention focal point, you are likely aware of the LTE Guidance and the events which have led to its development. For this reason, this section aims only to remind you of the key implications the LTE Guidance might have for you. It applies to focal points in "nuclear" countries, i.e., countries that have nuclear reactors (power stations).

Raise awareness about the LTE Guidance. Most stakeholders in your country are not aware of the Espoo Convention and are unlikely to know about LTE issue and the guidance. To prevent misunderstanding and build capacity to comply with the Espoo Convention, you may wish to organize meetings, presentations or brief lectures about the LTE guidance and its possible implications. It is a good idea to e-mail relevant stakeholders with a link to the LTE Guidance.

Be ready to cooperate and take leadership, if necessary. If a possible LTE case comes up in your country, be ready to engage with and cooperate with various stakeholders, especially your nuclear regulator. Countries with nuclear energy have complex nuclear legal framework, which may overlap with environmental frameworks. For example, some countries have well developed public participation procedures within nuclear decision-making. This requires close cooperation between nuclear authorities and environmental authorities to avoid duplication of efforts or misunderstanding.

Nuclear authorities will likely need your professional advice on the application of the Espoo Convention, its requirements, practice, and practical implications. You may even need to take leadership in applying the Convention should the decision be taken that TEIA is needed.

Similarly, the nuclear operator, civil society, local authorities may rely on your knowledge and expertise.

Be proactive. You may want to develop a general summary on possible LTE situations in your country and the need to apply the Espoo Convention. This will help you and other stakeholders to stay prepared for any possible LTE case. Should you become aware of a possible LTE case in your country or get alerted by your colleagues in neighboring countries or the public, start consultations immediately with your nuclear authority or any other relevant authority. This may save a lot of resources as well as time and help avoid confrontations, both inside and outside the country.

5. Implications for affected Parties

- **LTE Guidance is a legitimate basis for dialogue with the Parties of origin**
- **Wide notification can be expected**
- **Accident risks can be discussed at early stage**

It is often the affected Parties who bear only the risks as a result of the activities implemented in other countries due to their potential environmental impact. For this reason, it is important to develop deep understanding of the relevant international obligations and procedures enabling dialogue and consultations with the county of origin.

It is also important to keep in mind that the Espoo Convention is, above all, an instrument for cooperation. It shall not be perceived as a tool to confront other countries or pursue other goals except for those relating to environmental protection and safety.

The LTE Guidance has one general and several specific implications for the affected Parties. The general implication is that LTE may be considered as a proposed activity under the Espoo Convention. It basically excludes a general approach "LTE is out of the Convention's scope of application". Instead, several aspects must be considered on a case-by-case basis – which is the main purpose and scope of the LTE Guidance.

One practical and important implication of the LTE Guidance is that it provides for a wide range of issues, criteria and considerations as a legitimate checklist, **a basis for the initial consultations** between your country and the Party of origin. The guidance is focused on "application" of the Convention, therefore it provides you with a toolbox to be used at the very early stage of the Espoo Convention process: at the stage of notification.

The other and very specific implications for the affected Parties include a legitimate expectation of being notified and a possibility to discuss nuclear accidents at early stage of the procedure.

The Espoo Convention is a procedural instrument that, subject to certain conditions being met, requires the Party of origin to *notify any Party that it considers may be an affected Party* as early as possible, for the purpose of ensuring adequate and effective consultations (article 3 para of the Convention).[129]

When assessing, for the purpose of notification, which Parties are likely to be affected by a proposed nuclear activity listed in appendix I, the Party of origin should make the most careful consideration based on the precautionary principle and available scientific evidence (para 4 (b)). In general, even if a proposed activity appears to have a low likelihood of significant transboundary impacts, it may be advisable to notify potentially affected Parties.[130] In a situation where neither specific information on the likely significant adverse transboundary impacts nor any other general characteristics of the proposed activity are considered sufficient by the Party of origin to arrive at a definite conclusion on

[129] LTE Guidance, para 11.
[130] Ibid, para 15.

whether significant adverse transboundary impacts are likely, **the Party of origin is encouraged to notify widely** in order to reach a mutual understanding.[131]

If you did not get the notification, the LTE Guidance is clear: Article 3 para 7 of the Convention allows any Party that considers itself to be affected by a significant adverse transboundary impact of a proposed activity to hold discussions with the Party of origin.[132]

Nuclear accidents are usually among the highest concerns of the public. The LTE Guidance is clearly suggesting to discuss the **accident scenarios** with Parties that may be affected.[133] Note again, this may take place at a very early stage: from your perspective at the time when a notification decision is taken by the Party of origin or even before that.

Lastly, the affected Party's authorities, including the national focal point, play a critical role in facilitating public participation and information. It is therefore advisable that you consult your public, including non-governmental organizations, on their views and position towards the potential LTE decision in the Party of origin. Please, remember that within the Espoo Convention the public in your country heavily relies on you and your decisions. For example, if you (your government) decide to decline invitation for consultations (in response to notification by a Party of origin), your public will have less opportunities to participate.

[131] Ibid, para 79.
[132] Ibid.
[133] Ibid, para 63.

6. Implications for members of the public

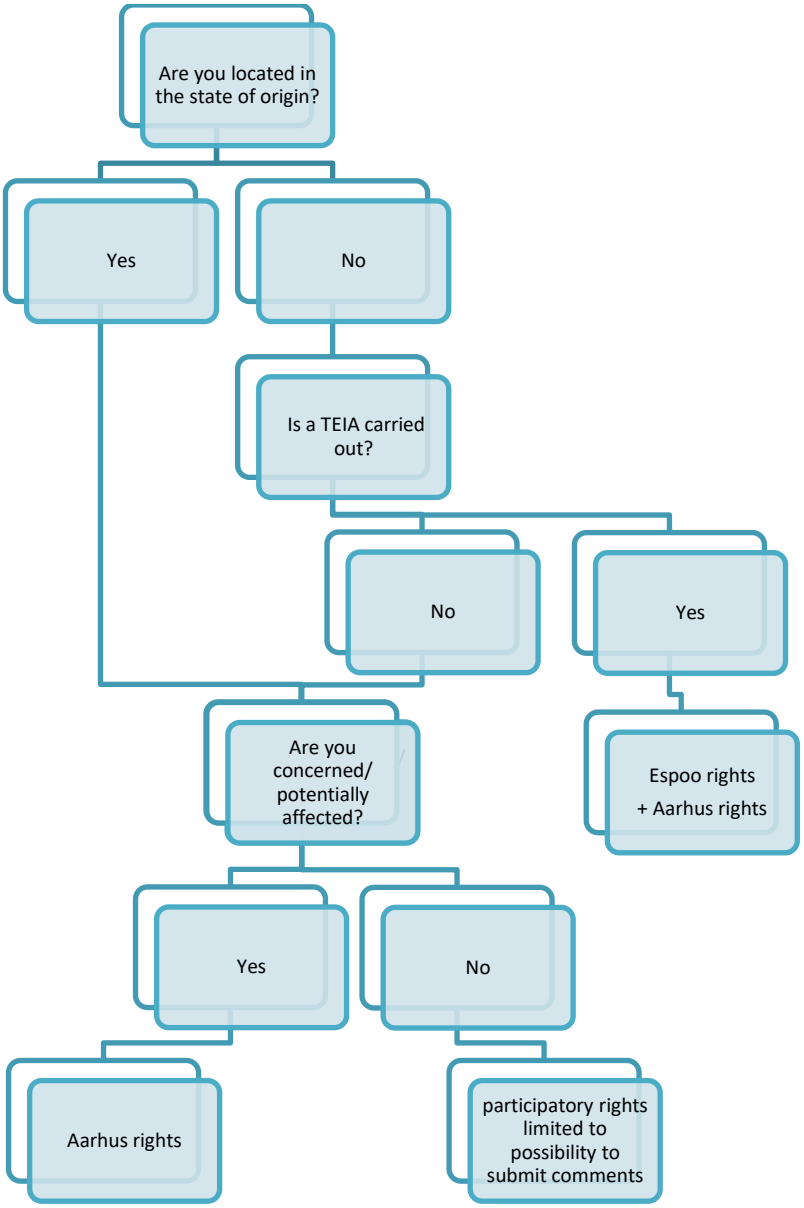
Key implications from the Espoo Convention include:

- **Right to be informed of the proposed activity**
- **Possibilities to request the competent authorities of the concerned Parties to allow public participation in a TEIA**
- **Right to comment on the proposed activity when all options are open**
- **Participate in the procedure within reasonable timeframes set by authorities**
- **Translation of relevant documents**
- **The views of the public expressed in the participation procedure must be considered by the Party of origin**
- **Access to the final decision**

Key implications from the Aarhus Convention, even when no EIA is carried out, include:

- **Adequate, timely and effective notification**
- **Public participation when all options are open**
- **Participate in the procedure and submit comments within reasonable timeframes set by authorities**
- **Developers should engage with the public concerned beforehand**
- **Access to all relevant information**
- **Taking due account of the outcome of public participation**
- **Prompt notification and access to the decision**
- **Access to justice related to public participation**

Chart 3. Implications for members of the public under the Espoo and Aarhus Convention



6.1. Rights of the public in the Party of origin

The first question to ask for members of the public – i.e., "natural or legal persons, and, in accordance with national legislation or practice, their associations, organizations or groups"[134] – is whether they are located inside or outside the Party of origin: As the Espoo Convention focusses on transboundary aspects, the public in the Party of origin can mostly rely on rights deriving from the Aarhus Convention.

[134] Article 1 (x) Espoo Convention; article 2 (4) Aarhus Convention.

If you are located in the Party of origin, a further criterion must be met in order for you to enjoy most of the rights laid down in articles 6 and 9 para 2 Aarhus Convention: You must be member of the public *concerned* (see also section 2.3.1.). Individuals may be concerned both because of the effects of the regular extended operating time of the NPP, and because of possible effects in the case of accidents or other exceptional incidents – even if they are of a very small risk.[135] According to the ACCC, it is insufficient to only grant individuals with property rights participatory possibilities.[136]

It should be noted that an LTE that is considered a proposed activity covered by Annex I to the Espoo Convention must also be subject to a (transboundary) EIA procedure under the Espoo Convention.[137] For lack of an EIA procedure, members of the public in the Party of origin can, therefore, approach their government asking for an environmental impact assessment meeting the requirements of national EIA legislation as well as the transboundary aspects laid down in the Espoo Convention.

It should also be noted that, if a transboundary EIA is carried out, members of the public in the Party of origin must be entitled to the same rights as members of the public in the affected Party/Parties, as article 3 (9) forbids any discrimination due to citizenship, nationality or domicile and – in the case of a legal entity – without discrimination as to where it has its registered seat or an effective centre of its activities.

In any case, the main implications for members of the public in the Party of origin remain those laid down in article 6 Aarhus Convention. They are either fully applicable, if the new NPP permit can be compared to a completely new project. Otherwise, according to article 6 para 10, they must be applied where appropriate and with the necessary changes (*mutatis mutandis*).[138] Thus, be it within an EIA procedure or any other form of decision-making, the LTE process requires public participation to a certain extent.

The situation according to the Aarhus Convention thus slightly differs to the Espoo Convention, where for the applicability of procedural requirements, it is irrelevant whether LTE qualifies as "new" activities or major change to an activity.[139] Under the Aarhus framework, however, there is a clear difference between "proposed activities" listed in Annex I including changes thereto[140] on the one hand, and the reconsideration or update of operating conditions[141] of a proposed activity, on the other hand.[142] While for proposed activities according to Annex I, public participation rights are fully applicable, in the case of article 6 (10), states have a certain discretion regarding which provisions of

[135] ACCC/C/2012/71 (*Czech Republic*), 26 December 2020, ECE/MP.PP/C.1/2017/3, para 73.
[136] ACCC/C/2010/50 (*Czech Republic*), 2 October 2012, ECE/MP.PP/C.1/2012/11, para 60.
[137] See above, p. 20; for further elaborating see ÖKOBÜRO/RACSE, Lifetime extension of nuclear power plants – Analysis of legal aspects (2020), p. 22.
[138] ACCC/C/2014/104 (*Netherlands*), 21 January 2018, ECE/MP.PP/C.1/2019/3; ACCC/C/2016/143 (*Czechia*), 26 July 2021, ECE/MP.PP/C.1/2021/2; see also section 2.4.
[139] For further elaboration see ÖKOBÜRO – Alliance of the Austrian Environmental Movement/Resource & Analysis Center "Society and Environment" (RACSE), Lifetime Extension of Nuclear Power Plants – Analysis of legal aspects, June 2020, pp 39 et seq.
[140] Annex I (11) Aarhus Convention.
[141] Article 6 (10) Aarhus Convention.
[142] For further elaboration see ÖKOBÜRO – Alliance of the Austrian Environmental Movement/Resource & Analysis Center "Society and Environment" (RACSE), Lifetime Extension of Nuclear Power Plants – Analysis of legal aspects, June 2020, pp 17 et seq.

paragraphs 2 to 9 of article 6 are applied to which extent. However, this discretion is limited, especially if, as in case of LTE, the update in the operating conditions might itself have a significant effect on the environment.[143]

As mentioned above in section 2.3.3., the public participation requirements of article 6 para 2-9 include the aspects elaborated in the following sub-sections, which are also reflected in the Maastricht Recommendations.[144]

6.1.1. Adequate, timely and effective notification – article 6 (2) Aarhus Convention

The public notification of a planned activity must be *adequate, timely and effective*. It must include all opportunities for the public to participate in the procedure including the timeframe for these opportunities. Article 6 para 2 specifies that certain information must at minimum be provided. This includes the proposed activity and the application on which a decision will be taken, the nature of possible decisions, the responsible public authority, the envisaged procedure, and information regarding the question whether the activity is subject to a national or transboundary EIA procedure.

Moreover, contact details of authorities from which relevant information can be received as well as time and place for the examination of the relevant information must be published. The information available must include a sufficiently clear and detailed description of the planned LTE, "so the public is able to gain an accurate understanding of its nature and scope".[145] Notifications of public hearings must include opportunities to participate, e.g. the hearing format and possibilities to make interventions.[146]

The means of notification must be suited to the persons identified as the public concerned, which means that in the case of controversial issues such as nuclear power plants, the needs of harder to reach persons or groups must be considered. Information must be available throughout the entire participation procedure and should remain accessible during the term for any administrative or judicial review of the final decision under national law.[147]

For members of the public in the Party of origin this means that they should follow relevant newspapers and/or social media as well as websites where authorities usually publish information on ongoing procedures in order to get aware of relevant information on LTE procedures. It helps to liaise with other NGOs or individuals to make sure that no information is missed, and participation can be most effective.

6.1.2. Reasonable timeframes – article 6 (3)

*Reasonable timeframe*s need not only be provided for notification issues, but also allow for the public concerned to become acquainted with the documentation. The period should be long enough to allow the public to request additional information that it considers potentially relevant to the final decision

[143] ACCC/C/2014/104 (*Netherlands*), 21 January 2018, ECE/MP.PP/C.1/2019/3, para 71 (with further references).
[144] Maastricht Recommendations on Promoting Effective Public Participation in Decision-making in Environmental Matters prepared under the Aarhus Convention, November 2015, ECE/MP.PP/10, ECE/MP.EIA/SEA/5.
[145] ACCC/C/2014/99 (*Spain*), 19 June 2017, ECE/MP.PP/C.1/2017/17, para 92.
[146] ACCC/C/2012/71 (*Czech Republic*), 26 December 2020, ECE/MP.PP/C.1/2017/3, para 80.
[147] UNECE, The Aarhus Convention. An Implementation Guide (2014), 134 ff; article 6 (2) Aarhus Convention.

on the proposed activity. The timeframes must also be broad enough to enable the public to submit any comments, information, analyses, or opinions that it considers relevant.[148] When determining the timeframe for public participation, authorities must consider the nature, complexity, and size of the relevant activity,[149] as well as common summer or Christmas holiday seasons.[150]

Timeframes that were considered insufficient are, e.g., 10 working days to get acquainted and prepare comments regarding the IEA documentation for a major landfill,[151] 11 days to get acquainted with and comment on a draft energy strategy,[152] or 7 days to get acquainted with and comment on a draft national investment plan.[153] 6 weeks of access to documents and another 6 weeks to submit comments regarding a domestic waste disposal plant,[154] 4 months to prepare and participate in a procedure regarding an NPP,[155] or a general minimum timeframe of 30 days between the public notice and the start of consultations[156] were considered adequate. Regarding the notification of a public hearing, a 2 to 4 day period before the date of the hearing is clearly insufficient.[157] A minimum of 20 calendar days was found to be sufficient, unless voluminous documentation requires a longer period for preparation.[158]

For members of the concerned public, such reasonable timeframes require that comments must be submitted on time, although a certain person might only get to know about available documents at a very late stage for whatever reason. Authorities are not obliged to take any other comments into account if the set timeframe complied with the Convention's requirements.

6.1.3. Public participation when all options are open – article 6 (4) Aarhus Convention

In the case of LTE, it is possible that not all relevant aspects are considered in only one procedure. In such cases of *tiered decision-making* (when a project requires more than one assessment procedure) the public must be involved at each stage of the decision-making process, if significant environmental aspects are dispersed between the different permitting decisions.[159] All environment-related permitting decisions with regard to the LTE in question which are capable of significantly changing the basic parameters and main environmental implications of a nuclear power plant must be covered by the permitting decision(s) involving a public participation process.[160] This means, that, e.g. land planning construction processes or nuclear safety assessments as separate or follow-up procedures after an EIA equally require public participation.[161] The requirement of public participation when all

[148] UNECE, The Aarhus Convention. An Implementation Guide (2014), 142 ff; article 6 (3) Aarhus Convention.
[149] ACCC/C/2006/16 (*Lithuania*), 2 April 2008, ECE/MP.PP/2008/5/Add.6, para 69.
[150] ACCC/C/2008/24 (*Spain*), 8 February 2011, ECE/MP.PP/C.1/2009/8/Add.1, para 91.
[151] Ibid, para 70.
[152] ACCC/C/2010/51 (*Romania*), 28 March 2014, ECE/MP.PP/C.1/2014/12, para 55.
[153] ACCC/C/2012/70 (*Czech Republic*), 4 June 2014, ECE/MP.PP/C.1/2014/9, para 57.
[154] ACCC/C/2007/22 (*France*), 3 July 2009, ECE/MP.PP/C.1/2009/4/Add.1, para 44.
[155] ACCC/S/2015/2 (*Belarus*), 23 July 2021, ECE/MP.PP/C.1/2021/13, para 112.
[156] ACCC/C/2009/37 (*Belarus*), 24 September 2010, ECE/MP.PP/2011/11/Add.2, para 89.
[157] ACCC/C/2016/144 (*Bulgaria*), 26 July 2021, ECE/MP.PP/C.1/2021/29, para 133.
[158] ACCC/C/2013/88 (*Kazakhstan*), 19 June 2017, ECE/MP.PP/C.1/2017/12, para 104.
[159] ACCC/C/2006/17 (*European Community*), 2 May 2008, ECE/MP.PP/2008/5/Add.10, para 42.
[160] Ibid, para 43.
[161] ACCC/C/2010/50 (*Czech Republic*), 2 October 2012, ECE/MP.PP/C.1/2012/11, para 70.

options are open then applies within each and every one of these tiered procedures[162] and public participation must not be limited to those members of the public which already participated in a prior procedure.[163]

Moreover, there should be at least one stage where the public is included in the decision whether a proposed activity should be carried out at all. At the time of public participation, the permitting authority must not be barred from fully turning down the activity or an application for an activity – neither formally nor informally.[164] At the same time, the public can neither expect that authorities do not already select or promote a preferred option at the stage of public participation, nor that all options studied are presented in the published documents. Nevertheless, members of the public must have the opportunity to propose other options (including the zero option) and challenge the one proposed by the applicant or authority in their comments.[165] It must be visible to members of the public that various options are still open when the participation procedure takes place.[166]

Public participation must also take place before a final decision on a particular option is made (that means that also, e.g., concluding construction contracts with privates before allowing for public participation is impermissible).[167] The same applies to investment plans, which already require public participation at the planning stage if they already form a prejudice for the decision on a certain LTE taken at a later stage.[168] Also, prior consultations or agreements with other states can lead to the result that not all options are open at the time when public participation is carried out.[169]

A short consultation period scheduled only more than 2 years after the start of an application's preparation is not in line with the requirements of public participation when all options are open according to article 6 para 4 Aarhus Convention.

Members of the public must therefore remember to raise all their relevant arguments in a public participation procedure, unless they have already sufficiently been considered at an earlier assessment stage. It is also important to remember that decision-makers have to consider any alternatives or options raise by members of the public, although a preferred option might already be presented by the developer or authority.

6.1.4. Access to all relevant information – article 6 (6) Aarhus Convention

The competent public authorities must give the public concerned *access for examination to all information relevant to the decision-making* that is available at the time of the public participation as soon as it becomes available. Access to all relevant information must be provided free of charge, however, members of the public can be charged for making copies of relevant documents.[170]

[162] ACCC/C/2006/17 (*European Community*), 2 May 2008, ECE/MP.PP/2008/5/Add.10, para 51.
[163] ACCC/C/2010/50 (*Czech Republic*), 2 October 2012, ECE/MP.PP/C.1/2012/11, para 81.
[164] ACCC/C/2007/22 (*France*), 3 July 2009, ECE/MP.PP/C.1/2009/4/Add.1, para 38.
[165] ACCC/C/2014/100 (*United Kingdom*), 12 March 2019, ECE/MP.PP/C.1/2019/6, para 84.
[166] ACCC/C/2013/98 (*Lithuania*), 4 August 2020, ECE/MP.PP/C.1/2021/15, para 121.
[167] UNECE, The Aarhus Convention. An Implementation Guide (2014), 144 f, article 6 (4) Aarhus Convention.
[168] ACCC/C/2010/45 and ACCC/C/2011/60 (*United Kingdom*), 23 October 2013, ECE/MP.PP/C.1/2013/12, para 81.
[169] ACCC/C/2013/98 (*Lithuania*), 4 August 2020, ECE/MP.PP/C.1/2021/15, para 115.
[170] ACCC/C/2008/24 (*Spain*), 8 February 2011, ECE/MP.PP/C.1/2009/8/Add.1, para 95.

Information must be made available close to the concerned members of the public, ideally in an electronic format.[171]

Disclosure of EIA studies should be considered as the norm, although certain parts might be exempted e.g., due to intellectual property rights.[172] In general, the available documents should cover all significant types of environmental effects that can be caused by LTE.[173] All relevant information must be provided by the decision-making authority and not the developer – even if the developer itself is a public authority.[174]

Members of the public should take care to examine the information provided within the set timeframes and ask for additional information they might deem necessary. After all, well-founded arguments can only be raised with all relevant information at hand.

6.1.5. Right to submit comments – article 6 (7) Aarhus Convention

Unlike the other provisions of article 6, the *right to submit any comments, information, analyses or opinions* that it considers relevant to the proposed activity is not limited to members of the public concerned but to all members of the public. Comments can be submitted in writing or, as appropriate, at a public hearing with the applicant. The responsible entity to submit comments to must be either be the competent authority itself or another body independent from the applicant or developer.[175] The authority taking the relevant decision must have direct access to all submitted comments to be able to take them into account.[176]

If a public hearing is conducted, the timeframe for submitting written comments should extend beyond the date of the hearing in order to leave the possibility to consider issues discussed at the hearing.[177]

As a member of the public you may thus submit any information or input without restriction, e.g. that comments must be "reasoned" or fulfill any other requirements.[178] However, you must consider it relevant to the activity in question, not limited to the consideration of the environmental impact and including views on aspects of the activity's permissibility and its compliance with environmental law.[179] In certain cases, authorities might require comments to be submitted in written format.[180]

6.1.6. Taking due account of the outcome of public participation – article 6 (8) Aarhus Convention

After an authority has come to a decision in an assessment procedure that involved the public, it must issue an *official statement of reasons* along with the final decision. It must include a discussion of how public participation outcomes were considered.

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[171] Ibid, para 61.
[172] ACCC/C/2007/22 (*France*), 3 July 2009, ECE/MP.PP/C.1/2009/4/Add.1, para 44.
[173] ACCC/C/2004/2(*Kazakhstan*), 18 February 2005, ECE/MP.PP/C.1/2005/2/Add.2, para 30.
[174] ACCC/C/2011/59 (*Kazakhstan*), 28 March 2013, ECE/MP.PP/C.1/2013/9, para 54.
[175] ACCC/C/2013/98 (*Lithuania*), 4 August 2020, ECE/MP.PP/C.1/2021/15, para 137.
[176] ACCC/C/2009/37 (*Belarus*), 24 September 2010, ECE/MP.PP/2011/11/Add.2, para 94.
[177] ACCC/C/2012/71 (*Czech Republic*), 26 December 2020, ECE/MP.PP/C.1/2017/3, para 105.
[178] ACCC/C/2013/98 (*Lithuania*), 4 August 2020, ECE/MP.PP/C.1/2021/15, para 130.
[179] ACCC/C/2010/50 (*Czech Republic*), 2 October 2012, ECE/MP.PP/C.1/2012/11, para 71.
[180] ACCC/C/2010/45 and ACCC/C/2011/60 *(United Kingdom)*, 23 October 2013, ECE/MP.PP/C.1/2013/12, para 78.

The process of considering public opinions must be fair and non-discriminatory, and the statement of reasons must include the following:

- A description of the public participation procedure and its phases,
- All comments received,
- Discussion of how the comments received have or have not been incorporated into the decision.

Authorities must explain how the comments received are reflected in the decision taken or why the substance of certain comments has been rejected or not accepted.[181] This explanation must come from the decision-making authority itself, as it is not permissible that the comments are only evaluated by the developer.[182] If the timeframe between public consultation and the decision taken is too short, it can be assumed that authorities do not have sufficient time to take the comments into account.[183]

If there is no indication that comments were sufficiently considered, this might be a reason for legal review (see section 6.1.8).

6.1.7. Prompt notification and access to the decision – article 6 (9) Aarhus Convention

In addition, states must notify the (general) public about the final decision immediately and must provide it with access to the decision as well as the reasons and considerations upon which it is based. It is not sufficient to only grant interested parties the opportunity to receive information without directly informing the public of the decision taken.[184] Furthermore, it is not sufficient if authorities publish decisions exclusively on the internet, as this opens a chance that members of the public without internet access are excluded from the information.[185]

The timeframe for informing the public of the decision must take into account the timeframe for initiating a legal review procedure (see section 6.1.8.).[186] Information about the possibilities to appeal the decision should also be provided to the public together with the decision.

For members of the public this means to stay informed of the outcome of procedures, not at last to be able to bring a legal remedy, if necessary. If a member of the public concerned can prove that it did not receive adequate notice due to a failure of the public authority or by force majeure, there must be a possibility for the timeframe for the review procedures to be restarted.[187]

6.1.8. Access to justice related to public participation – article 9 (2) Aarhus Convention

According to article 9 (2) Aarhus Convention, the concerned public must have *access to legal remedies to challenge decisions* taken within public participations procedures laid down in article 6. Thus, if the

[181] Findings and recommendations with regard to communication ACCC/C/2014/119 concerning compliance by Poland Adopted by the Compliance Committee on 15 June 2022 (advance unedited version), para 93.
[182] ACCC/C/2013/98 (*Lithuania*), 4 August 2020, ECE/MP.PP/C.1/2021/15, para 138.
[183] ACCC/C/2004/3 and ACCC/S/2004/1 (Ukraine), 14 March 2005, ECE/MP.PP/C.1/2005/2/Add.3, para 29.
[184] ACCC/C/2011/59 (*Kazakhstan*), 28 March 2013, ECE/MP.PP/C.1/2013/9, para 63.
[185] ACCC/C/2014/99 (*Spain*), 19 June 2017, ECE/MP.PP/C.1/2017/17, para 104.
[186] ACCC/C/2006/16 (*Lithuania*), 2 April 2008, ECE/MP.PP/2008/5/Add.6, para 84.
[187] UNECE, The Aarhus Convention. An Implementation Guide (2014), 157 f; article 6 para 9 Aarhus Convention.

elaborated procedural rights according to article 6 are violated, members of the public concerned must have access to efficient legal protection.

The Aarhus Convention lays down minimum procedural guarantees, as it requires for review procedures to provide adequate and effective remedies, to be conducted in a fair, equitable and timely way and to not impose excessive costs on the parties. [188] Adequacy means that reliefs must ensure the intended effect of the review procedure. To be effective, remedies need to enable real and efficient enforcement.[189] An element of the effective remedy is also to grant injunctive relief where appropriate. The requirements of fairness, equity and timeliness primarily try to ensure that the exercise of rights is not impossible or excessively difficult. Other aspects are the impartiality of decision-making bodies, the equal application of procedures on all persons, the information of the public of the review's outcome and an appropriate duration.

Finally, cost systems of assessment procedures must be reasonable in an objective and a subjective sense. In an objectively and subjectively appropriate cost system, courts should therefore pay sufficient attention to the public interest of nature with respect to the apportioning of costs and consider the personal situation of the applicant.

Access to justice must not only be provided in procedures that fall under article 6, but also regarding decisions on the question if public participation requirements will be applied. This includes especially EIA screening decisions.[190]

For members of the public concerned it should be noted that is not necessary to participate in a procedure beforehand to be entitled to a legal remedy.[191] Also, the scope of arguments to be brought within a legal review procedure is not limited to provisions protection the environment as such. You can also raise the breach of other legal provisions within a public participation procedure, such as provisions concerning construction conditions or economic investments.[192] The review body must be entitled to review all the facts, evidence, and arguments before determining the lawfulness of the challenged decision.[193] In case of tiered decision-making, it is sufficient if previous decisions can be challenged regarding the substantive and procedural legality within the procedure to challenge the final decision of a procedure subject to public participation.[194]

6.2. Rights of the Public in the (potentially) affected Party

If you are located in a country that is potentially affected by LTE, the source of the rights of the public depend on the question whether a transboundary EIA is carried out.

[188] Article 9 (4) Aarhus Convention.
[189] ACCC/C/2004/6 (*Kazakhstan*), 28 July 2006, ECE/MP.PP/C.1/2006/4/Add.1, para 30.
[190] ACCC/C/2010/50 (*Czech Republic*), 2 October 2012, ECE/MP.PP/C.1/2012/11, para 82; ACCC/C/2010/45 and ACCC/C/2011/60 (*United Kingdom*), 23 October 2013, ECE/MP.PP/C.1/2013/12, para 83.
[191] Ibid, para 78; in this regard see also ECJ 15 October 2009, *Djurgården-Lilla Värtans Miljöskyddsförening*, C-263/08, ECLI:EU:C:2009:631, para's 38 et seq.
[192] ACCC/C/2008/31 (*Germany*), 4 June 2014, ECE/MP.PP/C.1/2014/8, para 78.
[193] ACCC/C/2013/90 (*United Kingdom*), 26 July 2021, ECE/MP.PP/C.1/2021/14, para 119.
[194] ACCC/C/2016/138 (*Armenia*), 24 July 2021, ECE/MP.PP/C.1/2021/26, para 88.

6.2.1. Rights of the public without TEIA

If the area potentially affected by an LTE – be it only in case of major accidents or catastrophes of a small risk – extends beyond an international border, members of the public in the respective country are equally considered members of the "public concerned" for the purposes of article 6 of the Aarhus Convention. This includes foreign or international non-governmental environmental organizations that have expressed an interest in or concern about the LTE procedure.[195] If no TEIA is carried out, it is the responsibility of the Party of origin to inform the public concerned in other states in an adequate, timely, and effective member in line with the Aarhus Convention.[196] Regarding the specific aspects of public participation laid down in article 6, the public outside the territory of the Party of origin must not be treated differently than the "local" public.[197]

Notification requirements may include notification via newspapers and other means that are common in the relevant states, including other forms of communication such as social media.[198] Although the Aarhus Convention does not require a Parties of origin to translate all relevant information into the languages of all affected Parties, it can be necessary to provide notification as well as the main consultation documents in English or the national language of the affected Party.[199] Notification solely via a Ministry's website or in the print media of the affected Party, however, is usually not sufficient to effectively notify the public concerned outside the territory of the Party of origin.[200] Parties of origin may also contact NGOs or individuals in potentially affected Parties through their respective authorities.[201]

Like within the Party of origin, information to be provided to the public concerned across boarders includes "opportunities to participate in each stage of decision-making subject to article 6, in particular concerning the specific contact point to which comments can be submitted, the exact time schedule for transmittal of comments, and its opportunities to participate in any scheduled public hearing".[202]

In certain cases, no notification has taken place in accordance with the provisions of the Espoo Convention and the public of a Party considers that it would be affected by a significant adverse transboundary impact of a proposed activity. In these cases, the affected public should be able to apply to its competent authority to enter into a process of discussions with the Party of origin on whether there is likely to be a significant adverse transboundary impact. The public must have possibilities to request the competent authorities of the concerned Parties to allow public participation in a transboundary EIA procedure according to the Espoo Convention.

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[195] ACCC/C/2013/91 *(United Kingdom)*, 19 June 2017, ECE/MP.PP/C.1/2017/14, para 69.
[196] Ibid, para's 71 et seq.
[197] See, e.g., ACCC/S/2015/2 (*Belarus*), 23 July 2021, ECE/MP.PP/C.1/2021/13, para's 91 et seq.
[198] ACCC/C/2012/71 (*Czech Republic*), 26 December 2020, ECE/MP.PP/C.1/2017/3, para 72.
[199] ACCC/S/2015/2 (*Belarus*), 23 July 2021, ECE/MP.PP/C.1/2021/13, para's 107, 120, 150.
[200] ACCC/C/2013/91 (*United Kingdom*), 19 June 2017, ECE/MP.PP/C.1/2017/14, para's 79 et seq; ACCC/C/2012/71 (*Czech Republic*), 26 December 2020, ECE/MP.PP/C.1/2017/3, para 51; Report of the Compliance Committee on compliance by the United Kingdom of Great Britain and Northern Ireland – Part II, 2 September 2021, ECE/MP.PP/2021/60, para 47.
[201] ACCC/C/2004/3 and ACCC/S/2004/1 (*Ukraine*), 14 March 2005, ECE/MP.PP/C.1/2005/2/Add.3, para 28.
[202] ACCC/S/2015/2 (*Belarus*), 23 July 2021, ECE/MP.PP/C.1/2021/13, para 162 (b)(ii).

6.2.2. Rights of the public within TEIA

If a transboundary EIA is carried out, according to the Aarhus Convention the Party of origin can either notify the public concerned in the affected Party itself, or it must make the necessary efforts to ensure that the affected Party notify its public effectively.[203] Under these circumstances, members of the public have certain specific rights, especially towards their own government.

Under the Espoo Convention, it is the joint responsibility of both Party of origin and affected Party to ensure that the public of the affected Party in the areas likely to be affected is informed of the proposed LTE activity. When a notification is received, the authorities in the potentially affected Party may be required by their own national legislation to consult with regional or local competent authorities, statutory environmental authorities, and members of the public. The timeframe for response set by the Party of origin must allow for the following:[204]

- transmission of documents to the authorities in the affected Party,
- arrangements for informing the public,
- an equivalent time period for public participation, and
- the receipt and transfer of comments from the affected Party to the authorities in the Party of origin.

If the Party responds positively to an invitation to take part in the EIA procedure, the affected Party should also provide information about the way(s) in which public participation may most effectively be carried out within its territory. In any case, notifications must be sent to the competent authorities of the affected Parties before the final decision about LTE is made. This way affected Parties have the opportunity to inform members of their public adequately.

If a state is not notified by the Party of origin but considers that it would be affected by a significant adverse transboundary impact of the lifetime extension of a NPP, it can request exchange of sufficient information for the purposes of holding discussions on whether there is likely to be a significant adverse transboundary impact. This request must be made as soon as it becomes aware of a proposed activity that it considers to have a likely significant adverse transboundary impact.[205] Members of the public can therefore call upon their governments to comply with this obligation.

As according to the Espoo Convention, all involved states must provide reasonable time frames for the public to participate in the different phases of transboundary EIA. Deadlines must allow sufficient time for informing the public and for the public to prepare and participate effectively during the transboundary EIA procedure. Time limits for receiving the public responses usually range from 30 to 40 days for the EIA programme and from 40 to 60 days for the EIA report.[206]

The Party of origin and the affected Party arrange for collecting the comments from the public and sending them to the Party of origin. If necessary, they must translate the comments of the public so

[203] ACCC/C/2012/71 (*Czech Republic*), 26 December 2020, ECE/MP.PP/C.1/2017/3, para 72.
[204] UNECE, Public participation provisions of the Convention and their application (2006) para 60.
[205] Decision VIII/4 on General issues of compliance with the Espoo Convention, excerpt from ECE/MP.EIA/30/Add.2, ECE/MP.EIA/SEA/13/Add.2, para 12 (a) (i).
[206] UNECE, Public participation provisions of the Convention and their application (2006) p. 19.

that the competent authority of the Party of origin can understand them. Statements must usually be submitted to the responsible authority of the affected Party which then transfers them to the Party of origin. In some cases, Parties of origin also provide ways to directly submit statements, e.g. via online service. However, the competent authorities of both Parties – Party of origin and affected Party – should be able to provide all information dealing with this procedure (including the comments or objections of the public of the affected Party).[207]

Similarly to the provisions of the Aarhus Convention, the public in the areas likely to be affected is entitled to express comments and opinions on the proposed activity *when all options are open* before the final decision on an activity is made. The views of the public expressed in the participation procedure must then be taken into account by the decision-making authority in Party of origin.[208] The final decision, including possible rights to appeal it, must be made available to the authorities of the affected Parties.[209]

For effective participation, the public must be able to understand the information. Therefore, if the public in an affected Party is not sufficiently conversant with the language of the Party of origin, relevant documents must be translated for public participation. As a minimum, the non-technical summary and those parts of the EIA documentation that are necessary to provide an opportunity to the public of the affected Party to participate (e.g., transboundary impacts) must be translated into the national language. In case of more than one national language, the Parties agree into which language the documentation should be translated.[210] Translation of such document is usually the responsibility of the party of origin.[211]

The opportunity to study the EIA documentation and to take notes must be free of charge. This can be ensured through the establishment of a convenient location where the information can be kept in an accessible form and consulted at reasonable hours. However, the authority can impose reasonable charges for copies or other photocopying services consistent with the main aim of providing for effective public participation.[212]

The Party of origin must apply the principles of the Aarhus Convention equally, also in case of TEIA. This mean, inter alia, that concerned members of the public in potentially affected Parties must not only be involved in the transboundary EIA procedure itself, but also in all relevant subsequent procedures. Additionally, members if the concerned public in the affected Party must have access to review procedure to challenge the decision taken by the Party of origin.

[207] Article 4 Espoo Convention.
[208] Article 6 (1) Espoo Convention.
[209] Article 6 (2) Espoo Convention.
[210] UNECE, Good Practice Recommendations on the Application of the Convention to Nuclear Energy-related Activities, para 45.
[211] UNECE, Public participation provisions of the Convention and their application (2006) para 26.
[212] UNECE, Public participation provisions of the Convention and their application (2006) para 78.

7. Closing Remarks

Lifetime extension of nuclear power plants raises serious implications for Party of origin, affected Party, and the public in both Parties. This guide provides extensive overview of such possible implications based on the Espoo Convention's official *Guidance on the applicability of the Convention to the lifetime extension of nuclear power plants.*

In real life the key challenge and question is to identify and qualify a specific case as a lifetime extension. Given the complexity of this term and lack of a uniform use, it can be quite hard to reach a reasonable conclusion whether what we have at consideration is a possible LTE case.

Some countries may have a clear legal approach recognizing LTE as a technical and regulatory issue. In some countries it could be absent and, therefore, it may be much more difficult to identify an LTE case and a case-by-case approach is often needed to assess the situation.

We strongly encourage the reader – whether you represent a nuclear regulator or environmental authority in a Party of origin or an affected Party, or the public in such countries – to read carefully all sections of this guide, but particularly sections 2 and 3 which can help you to assess whether there is a potential LTE case in front of you.

Lastly, it is important to note that public participation obligations (and respective rights of the public) may arise under the Aarhus Convention for other reasons other than a decision on LTE. There are a number of related decision-making procedures applicable to nuclear activities which will trigger the need for public participation procedures, including in transboundary context, without the LTE issue being raised or applicable.

8. References

UNECE documents

Espoo

- UNECE, Guidance on the Applicability of the Espoo Convention to the Lifetime Extension of Nuclear Power Plants (2020): https://unece.org/sites/default/files/2021-02/Guidance_on_Conventions%20applicability_to_LTE%20of%20NPPs_As%20endorsed%20and%20edited.pdf
- UNECE, Good Practice Recommendations on the Application of the Espoo Convention to Nuclear Energy-related Activities (2017): https://unece.org/DAM/env/eia/Publications/2017/1734724_ENG_web.pdf
- UNECE, The Aarhus Convention. An Implementation Guide (2014): https://unece.org/DAM/env/pp/Publications/Aarhus_Implementation_Guide_interactive_eng.pdf
- UNECE, Guidance on Public Participation in Environmental Impact Assessment in a Transboundary Context (2006): https://unece.org/DAM/env/documents/2006/eia/ece.mp.eia.7.pdf
- UNECE, Guidance on the Practical Application of the Espoo Convention, ECE/MP.EIA/8 (2006): https://unece.org/DAM/env/documents/2006/eia/ece.mp.eia.8.pdf
- Decision VIII/4 on General issues of compliance with the Espoo Convention, excerpt from ECE/MP.EIA/30/Add.2, ECE/MP.EIA/SEA/13/Add.2, available at https://unece.org/sites/default/files/2021-02/Decision_VIII-4_General_issues_compliance_with_the_Convention.pdf
- Decision VI/2 adopted by the Meeting of the Parties to the Convention on Review of Compliance with the Convention Excerpt from ECE/MP.EIA/20/Add.1, ECE/MP.EIA/SEA/4Add.1, available at https://www.unece.org/fileadmin/DAM/env/eia/meetings/Decision_VI.2.pdf
- Appendix of Annex II to Decision III/2 2 adopted by the Meeting of the Parties to the Convention on Review of Compliance with the Convention, ECE/MP.EIA/6, available at https://unece.org/DAM/env/documents/2004/eia/decision.III.2.e.pdf
- Annex to Decision I/7 adopted by the Meeting of the Parties to the Convention on Review of Compliance with the Convention, ECE/MP.PP/2/Add.8, available at https://unece.org/fileadmin/DAM/env/pp/documents/mop1/ece.mp.pp.2.add.8.e.pdf
- Report of the Implementation Committee on its fifty-third session ECE/MP.EIA/IC/2022/4, 15 June 2022, available at https://unece.org/sites/default/files/2022-06/ece_mp.eia_ic_2022_4_advance_edited.pdf
- Report of the Implementation Committee on its fifty-second session, ECE/MP.EIA/IC/2022/2, 4 May 2022, available at https://unece.org/sites/default/files/2022-05/ece_mp.eia_ic_2022_2_as_formatted_adv_unedited.pdf
- Report of the Implementation Committee on its fifty-first session, ECE/MP.EIA/IC/2021/6, 1 November 2021, available at https://unece.org/sites/default/files/2022-01/ece_mp.eia_ic_2021_6_e.pdf

Aarhus

- Maastricht Recommendations on Promoting Effective Public Participation in Decision-making in Environmental Matters prepared under Aarhus Convention (2015) ECE/MP.PP/10, ECE/MP.EIA/SEA/5, available at https://unece.org/fileadmin/DAM/env/pp/Publications/2015/1514364_E_web.pdf
- UNECE, Guide to the Aarhus Convention Compliance Committee (2019), available at https://unece.org/DAM/env/pp/Publications/Guide_to_the_Compliance_Committee__second_edition__2019_/English/Guide_to_the_Aarhus_Convention_Compliance_Committee__2019.pdf
- Report of the Compliance Committee on compliance by the United Kingdom of Great Britain and Northern Ireland – Part II, 2 September 2021, ECE/MP.PP/2021/60
- ACCC/C/2016/144 *(Bulgaria),* 26 July 2021, ECE/MP.PP/C.1/2021/29
- ACCC/C/2016/143 *(Czechia)*, 26 July 2021, ECE/MP.PP/C.1/2021/2
- ACCC/C/2013/90 *(United Kingdom)*, 26 July 2021, ECE/MP.PP/C.1/2021/14

- ACCC/C/2013/91 *(United Kingdom)*, 19 June 2017, ECE/MP.PP/C.1/2017/14
- ACCC/C/2016/138 (*Armenia*), 24 July 2021, ECE/MP.PP/C.1/2021/26
- ACCC/C/2012/71 (*Czech Republic*), 26 December 2020, ECE/MP.PP/C.1/2017/3
- ACCC/C/2013/98 (*Lithuania*), 4 August 2020, ECE/MP.PP/C.1/2021/15
- ACCC/C/2013/107 (*Ireland*), 26 August 2019, ECE/MP.PP/C.1/2019/9
- ACCC/C/2014/100 (*United Kingdom*), 12 March 2019, ECE/MP.PP/C.1/2019/6
- ACCC/C/2014/104 (*Netherlands*), 21 January 2018, ECE/MP.PP/C.1/2019/3
- ACCC/C/2013/92 (*Germany*), 8 September 2017, ECE/MP.PP/C.1/2017/15
- ACCC/C/2013/91 (*United Kingdom*), 24 July 2017, ECE/MP.PP/C.1/2017/14
- ACCC/C/2013/88 (*Kazakhstan*), 19 June 2017, ECE/MP.PP/C.1/2017/12
- ACCC/C/2014/99 (*Spain*), 19 June 2017, ECE/MP.PP/C.1/2017/17
- ACCC/C/2012/70 *(Czech Republic)*, 4 June 2014, ECE/MP.PP/C.1/2014/9
- ACCC/C/2010/51 *(Romania)*, 28 March 2014, ECE/MP.PP/C.1/2014/12
- ACCC/C/2010/45 and ACCC/C/2011/60 (*United Kingdom*), 23 October 2013, ECE/MP.PP/C.1/2013/12
- ACCC/C/2010/50 (*Czech Republic*), 2 October 2012, ECE/MP.PP/C.1/2012/11
- ACCC/C/2008/24 *(Spain)*, 8 February 2011, ECE/MP.PP/C.1/2009/8/Add.1
- ACCC/C/2009/37 *(Belarus),* 24 September 2010, ECE/MP.PP/2011/11/Add.2
- ACCC/C/2007/22 *(France)*, 3 July 2009, ECE/MP.PP/C.1/2009/4/Add.1
- ACCC/C/2006/17 (*European Community*), 2 May 2008, ECE/MP.PP/2008/5/Add.10
- ACCC/C/2006/16 (*Lithuania*), 2 April 2008, ECE/MP.PP/2008/5/Add.6
- ACCC/C/2004/3 and ACCC/S/2004/1 *(Ukraine)*, 14 March 2005, ECE/MP.PP/C.1/2005/2/Add.3
- ACCC/C/2004/2 *(Kazakhstan)*, 18 February 2005, ECE/MP.PP/C.1/2005/2/Add.2
- ACCC/S/2015/2 (*Belarus*), 23 July 2021, ECE/MP.PP/C.1/2021/13

EU Case-law

- Judgement of 29 July 2019, *Inter-Environnement Wallonie and Bond Beter Leefmilieu Vlaanderen*, C-411/17, ECLI:EU:C:2019:622
- Judgement of 20 December 2017, *Protect*, C-644/15, ECLI:EU:C:2017:987
- Judgement of 8 November 2016, *Lesoochranárske zoskupenie VLK*, C-243/15, ECLI:EU:C:2016:838
- Judgement of 15 October 2009, *Djurgården-Lilla Värtans Miljöskyddsförening*, C 263/08, ECLI:EU:C:2009:631
- Opinion of Advocate General Pikamäe delivered on 3 February 2022, *Mine de Turów*, C 121/21, ECLI:EU:C:2022:74, para 65

Other sources

- International Atomic Energy Agency (IAEA), Nuclear Power Plant Life Extensions Enable Clean Energy Transition (2020), available at https://www.iaea.org/newscenter/news/iaea-data-animation-nuclear-power-plant-life-extensions-enable-clean-energy-transition#:~:text=More%20than%20two%20thirds%20of%20the,and%20corresponding%20safety%20reviews%20by%20authorities.&text=More%20than%20two%20thirds,safety%20reviews%20by%20authorities.&text=two%20thirds%20of%20the,and%20corresponding%20safety%20reviews
- International Atomic Energy Agency (IAEA), Periodic Safety Review for Nuclear Power Plants, IAEA Safety Standards Series No. SSG-25 (2013) available at https://www.iaea.org/publications/8911/periodic-safety-review-for-nuclear-power-plants
- ÖKOBÜRO – Alliance of the Austrian Environmental Movement/Resource & Analysis Center "Society and Environment" (RACSE), Lifetime Extension of Nuclear Power Plants – Analysis of legal aspects, (2020) available at https://oekobuero.at/files/456/oekobueroracse_legal_analysis_lte_final.pdf

- ÖKOBÜRO – Alliance of the Austrian Environmental Movement, Lifetime Extension of Nuclear Power Plants – Toolkit for Public Participation (2022) available at https://www.oekobuero.at/files/717/toolkit_public_participation_lte_okoburo_2022_fin.pdf
- ÖKOBÜRO – Alliance of the Austrian Environmental Movement, Casebook Nuclear Advocacy – Case-Law on International Regulations in the Nuclear Sector (2022) available at https://www.oekobuero.at/files/334/casebook_nuclear_advocacy_okoburo_2022_fin.pdf
- ÖKOBÜRO – Alliance of the Austrian Environmental Movement, International Case-Law in Nuclear Matters (2022) available at https://www.oekobuero.at/files/416/international_nuclear_case-law_2022.pdf
- Organisation for Economic Co-operation and Development (OECD), Legal frameworks for long-term operation of nuclear power reactors (2019) available at http://www.oecd-nea.org/law/pubs/2019/7504-long-term-operation-npp.pdf
- Organisation for Economic Co-operation and Development (OECD), Nuclear Power Plant Life Management and Longer-term Operation (2006) available at https://www.oecd-nea.org/upload/docs/application/pdf/2019-12/6105-npp-life-management.pdf

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Funded by the Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology

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