
# ERGEG Status Review on Building and Construction Authorisation and Permit Process - Case Examples

**Ref: E08-EFG-27-04**

**06 February 2008**

European Regulators Group for Electricity and Gas
Contact: Council of European Energy Regulators ASBL
28 rue le Titien, 1000 Bruxelles
Arrondissement judiciaire de Bruxelles
RPM 0861.035.445

# Contents

## 1. Introduction

The ERGEG has produced this status review on building and construction authorisation and permission (BCAP) processes using case examples following a request by the European Commission during the consultation concerning the electricity sector in view of the 2008 revision of TEN-E Guidelines.

The document includes some examples of BCAP processes in Member States. Regulators have collected information from recently or soon-to-be commissioned reinforcements in the grid. The reinforcements included are mainly interconnections across borders.

Case examples include interconnections between:

- Spain and Portugal (400 kV AC line)
- Romania and Hungary (400 kV AC line)
- Italy and Switzerland,(400 kV AC line)
- Finland and Estonia (350 MW DC interconnection).

Furthermore, the BCAP process of an internal 400 kV AC line in Finland has been described.

From these case examples, it can be concluded that it is possible to build cross-border lines within 5 - 6 years. However, in order to achieve more progress across Member States generally, the recommendations the ERGEG introduced in its conclusions paper in 2007 on "Cross Border Framework for Electricity Transmission Network Infrastructure"[1] should be further elaborated within the EU and national legal framework. The recommendations in the ERGEG paper were:

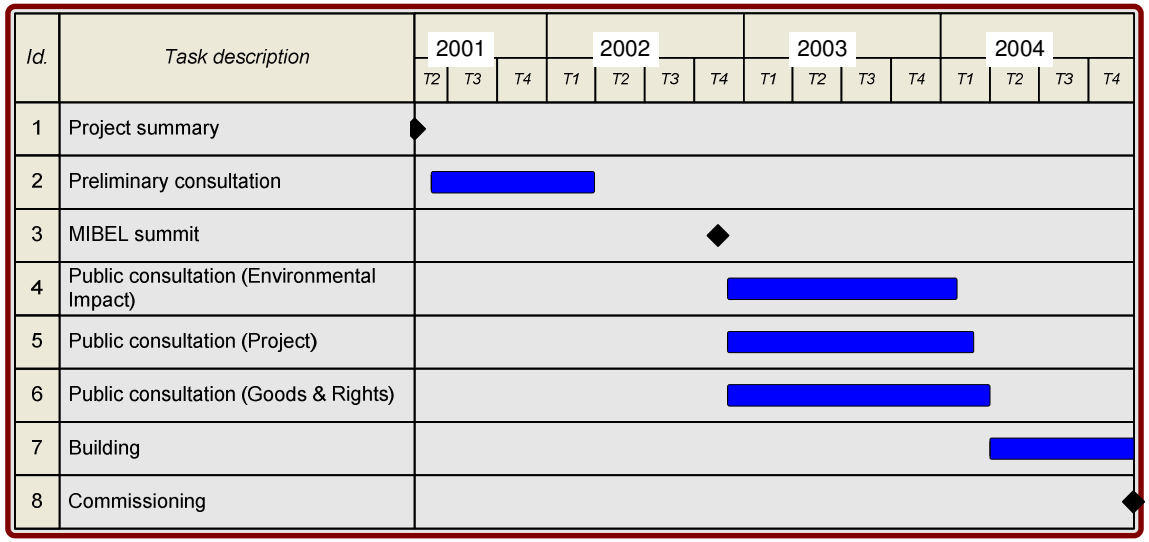
- Processes for BCAPs, including land planning, should be expedited, with the introduction of clear criteria, transparent guidelines and deadlines, with appropriate appeals mechanisms and with the consistent and transparent definition of roles either side of a border.
- Processes for obtaining BCAPs should include the possibility for national regulators and where appropriate ERGEG to provide an independent view or endorsement regarding a project's impact or importance for the secure and effective functioning of the electricity market.
- An independent third party is needed to provide a neutral opinion on the wider benefits of any project against any local costs and concerns.

In addition, the ERGEG noted in its conclusions paper that clear political support is needed at both EU and national level in order to foster infrastructure investments.

[1] ERGEG report E07-ETN-01-03, 18 April 2007.

## 2. Building and construction authorisation and permit process in Spain (line Alqueva (PT) – Balboa (ES))

**Process diagram (Spanish side):**




**Explanation:**

1. Kick-off milestone: Project summary – Key data compilation prepared after a number of studies conducted on main possible alternatives for the interconnection; particular interest is focused on environmental issues. A "least impact alternative path" is selected. The area affected is not densely populated but is extremely rich in wildlife biotopes, especially bird species habitats, some of them under risk and almost unique in Europe.

Environmental concern is identified from the very inception of the project as one of the major difficulties to be tackled with. About one half of the line-path pre-delimited scope area is included within the network "Natura 2000" - protected sites in accordance with Directive 92/43/CE, relating to the conservation of natural habitats and wild fauna and flora. Main biological richness in the area is bird wildlife protected under Directive 79/409/CE; one of the biggest so-called Zones of Special Protection for wild Birds (ZEPA) in Spain overlaps the "Natura 2000" site. The area is home to severely endangered species such as the black stork, various types of cranes and some of the biggest birds of prey on Iberian soil, like the imperial and royal eagles, the royal owl and different kinds of vultures. A number or rivers crossing the site are a breeding place for aquatic birds, and the zone borders the assumed wander area for the close-to-extinction Iberian lynx.

The choice of a "least impact alternative path" is made by avoiding as much as possible the different highly protected areas, resulting in quite a windy track up to the Portuguese border (see next Fig I graph).

2. Preliminary consultation process: Views on alternative paths and their impact are invited from different stakeholders involved. Environmental administrations at three levels are involved (European, national, regional). Local authorities and land owners also contacted.

3. 14th November 2002 – MIBEL Protocol is signed by Portuguese and Spanish authorities; the Alqueva-Balboa line is officially endorsed.
The new interconnection is identified as essential for the development of the Iberian Electricity Market (MIBEL) and the highest priority and political support are granted. Both governments commit themselves to pave the way to ease administrative procedures, as far as all technical and environmental constraints are met. The reinforcement of interconnection is deemed a "State affair", and included in the institutional agenda as a must, with a commissioning date by end-2004.

This kind of high level involvement and coordination between governments and TSOs has proved crucial in cross-border projects, where the number of potential obstacles (administrative, environmental, social opposition, etc...) are a hindrance that may result in ever-increasing delays.

4. (in parallel with Tasks 5 & 6): An official three-fold public consultation process starts on the project itself (4), the Environmental Impact Study (5) and the Goods and Rights Inventory (6); the latter is a list of all properties to be expropriated and of those affected by right-of-ways procedures.
Public consultation on the project itself is mostly of a technical character and therefore less polemical; Environmental Impact Study and Goods & Rights Inventory concentrate the greater stake in number of claims and allegations. Environmental issues have been dealt with above; as for Goods & Rights, in this region of southern Spain, near the border, properties are usually of a relatively large surface area (compared to those in northern areas, where estates are extremely atomised); this eases to some extent the process, lengthy as it is, in any case.

4. Environmental Impact Declaration obtained – Main legal certification to overcome ecological constraints.

5. Project Approval – Full administrative permission to proceed.

6. Public Utility Declaration obtained – Main legal document to allow expropriation and right-of-ways concession.

7. Start of building – Total length on Spanish soil reaches up to 41.5 km; three municipalities are crossed, all of them within one Autonomous Community (regional administration); 98 double-circuit pylons are used.

8. Line commissioning within deadline of December 2004, as planned two years before.

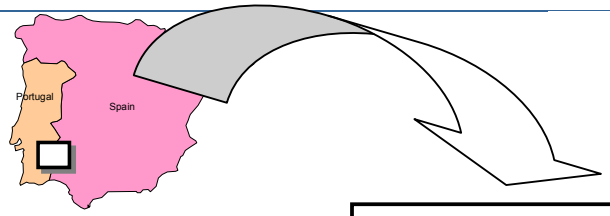
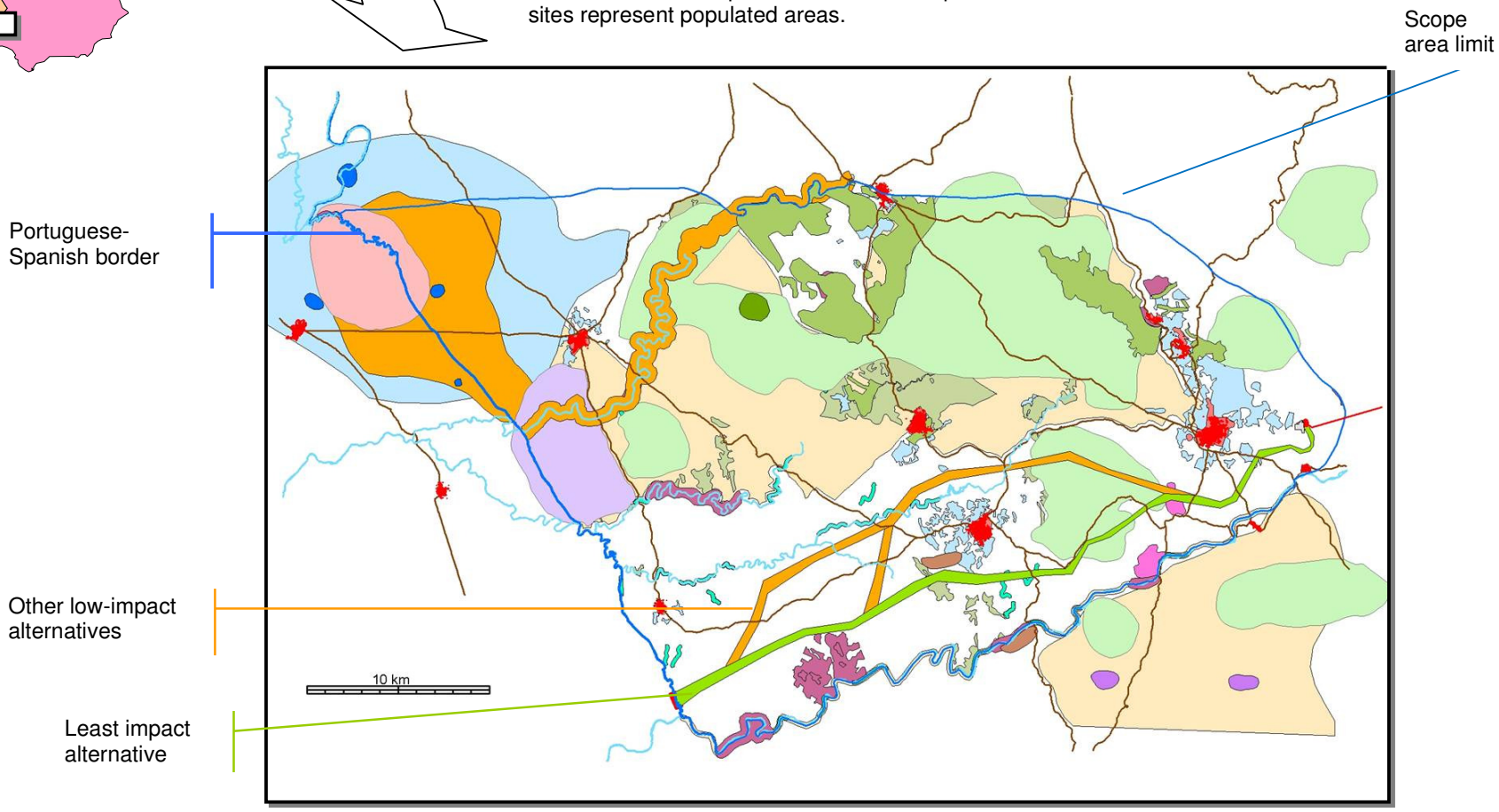


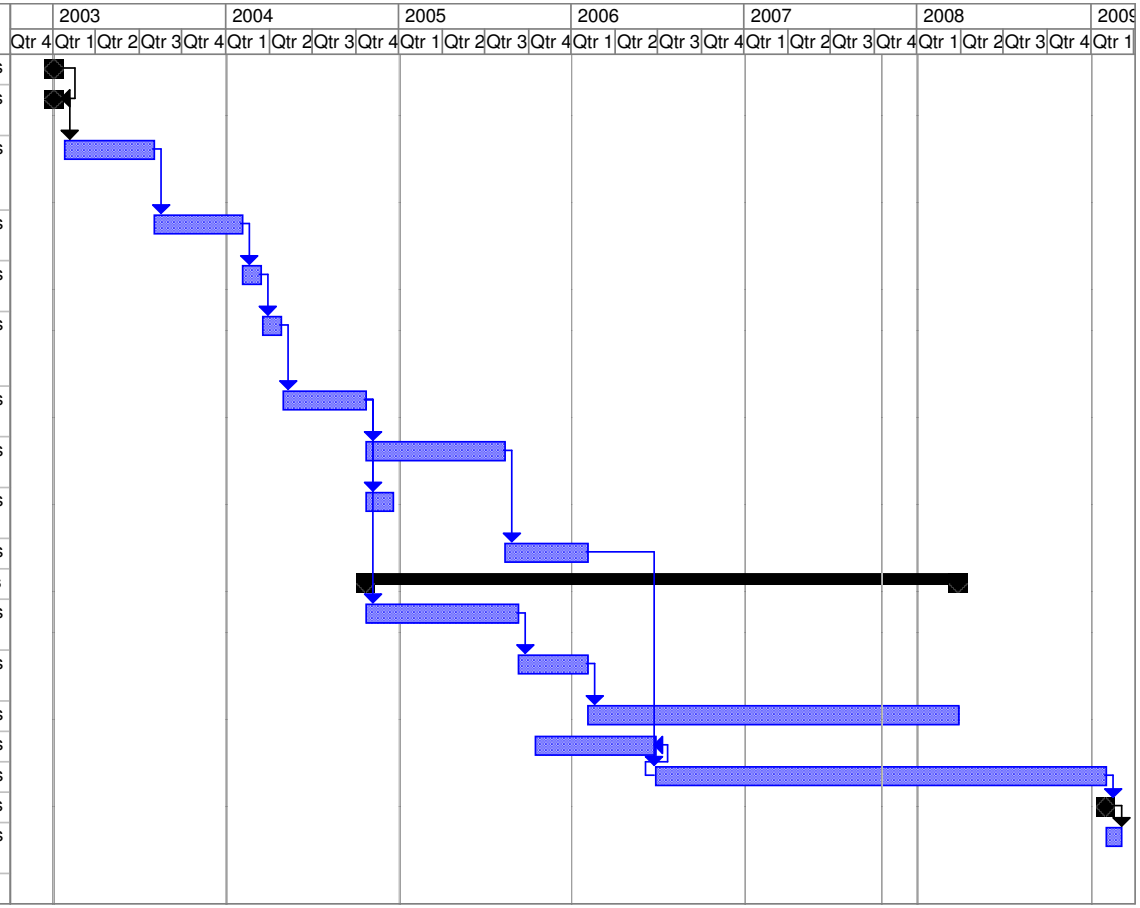

**Fig I**. Alqueva-Balboa PT-ES interconnection (Spanish side): Low and least impact path alternatives.

Coloured surfaces represent wildlife areas protected to some extent or other. Red sites represent populated areas.



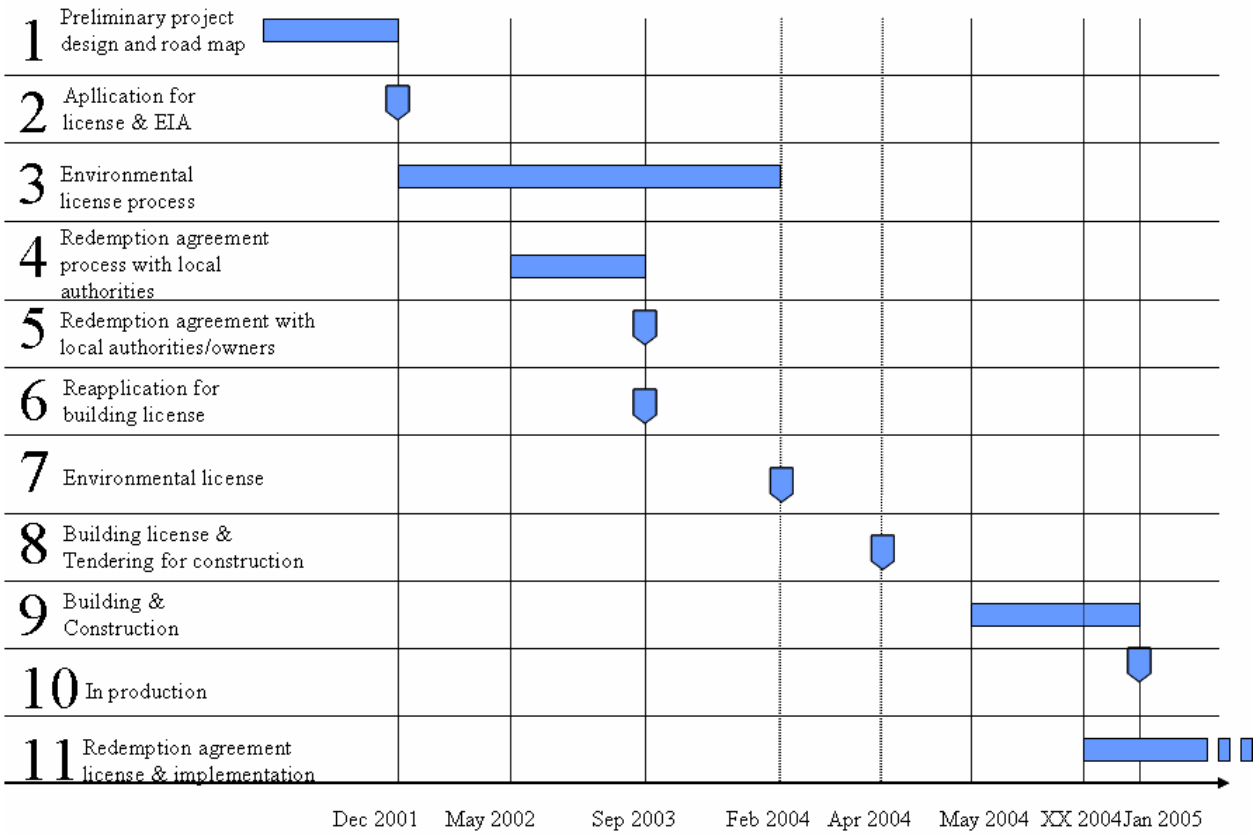
## 3. Building and construction authorisation and permit process in Romania (new 400 kV line between Romania and Hungary)

| ID | Task Name | Duration |
|---|---|---|
| 1 | Project included in the Master Plan | 0 days |
| 2 | Notification to Energy Regulatory Authority | 0 days |
| 3 | Contracting design (Feasibility Study + Basic Design + Technic Tender Docs) | 135 days |
| 4 | Issue FS / Endorsment by Tech - Ec Board of Transelectrica | 132 days |
| 5 | Energy Regulatory Authority point of view on the FS | 30 days |
| 6 | Endorsment of technico-econ indicators by the Board of Administration and Shareholders | 30 days |
| 7 | Approval of tech - ec indicators Governmental Decision | 126 days |
| 8 | Contracting + approval of the Loan (financing) | 212 days |
| 9 | Submition/ endorsment of Basic Desigr and Technical Tender Docs | 43 days |
| 10 | Contracting works | 125 days |
| 11 | **Land aquisition** | **897 days** |
| 12 | Govermnetal Decision on the Prior Survey Development | 230 days |
| 13 | Governmental Decision on the Public Utility Declaration | 107 days |
| 14 | Expropriation formalities | 560 days |
| 15 | Athorisation from Energy Regulatory Au | 180 days |
| 16 | Project Works | 680 days |
| 17 | Energization | 0 days |
| 18 | Report to the Energy Regulatory Authority | 25 days |



## 4. Building and construction authorisation and permit process in Italy (380 kV line between Italy and Switzerland)

**Building process for the project Sao Fiorano (IT) - Robbia (CH) (Italian side):**



**Description of the project Sao Fiorano (IT) - Robbia (CH):**

380kV overhead line project between Italy and Switzerland, originally launched in 1992 and not deployed in the following years. In 2001, because the original permission had expired in the mean time (while Swiss works had progressed to a certain extent), the TSO (at that time the ISO - GRTN) started preliminary planning and authorisation procedure for the overhead doubled line 380kV, 42 km long in Italian territory and 15 km long in Swiss territory, with a capacity of 1000 MVA per line.

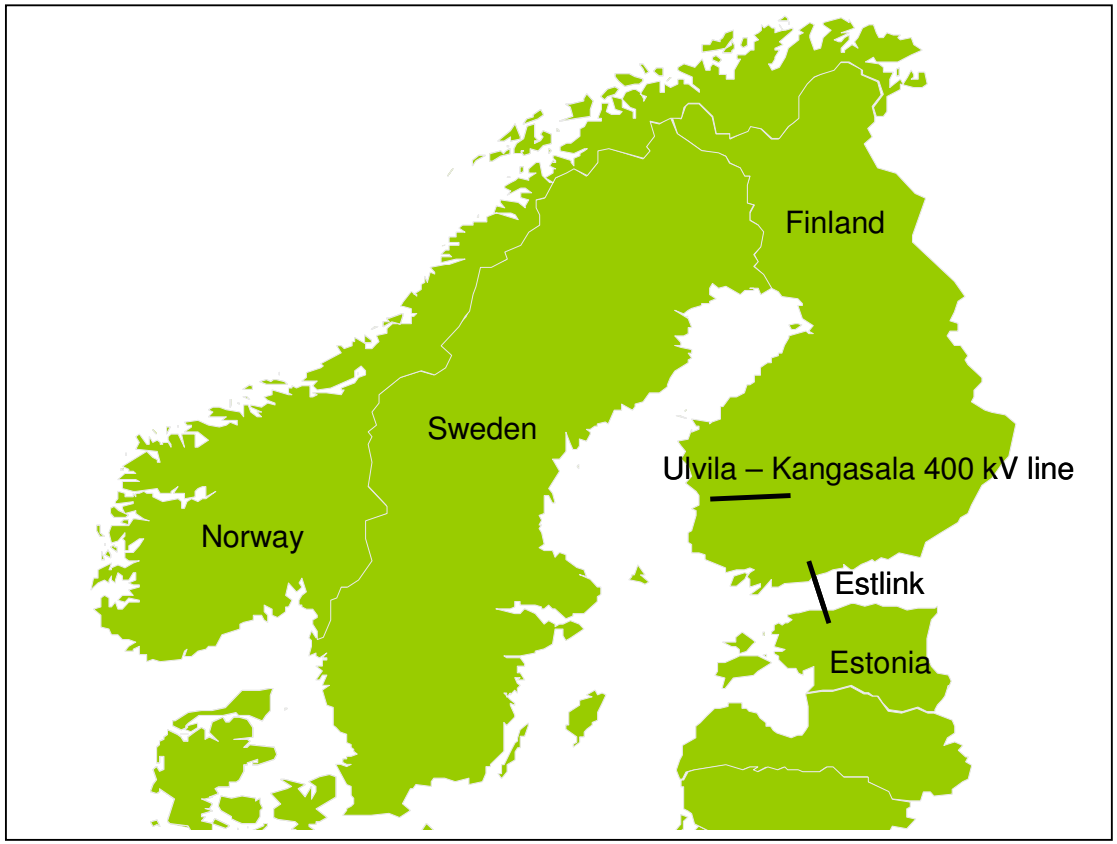
| | |
|---|---|
| 1. Preliminary project design and road map | Preliminary project defined by GRTN |
| 2. Application for license & EIA | Application for construction license and Environmental license to Ministry of Industry and Ministry of Transport and Infrastructure on one hand and Ministry of Environment and Regional Authorities on the other hand. |
| 3. Environmental license process | See 2 |
| 4. Redemption agreement process with local authorities | Definition of the redemption agreement with landowners, local and regional authorities. |
| 5. Redemption agreement with local authorities/owners | Signing of the agreement |
| 6. Reapplication for building license | Due to the initial obstacles of the local Authorities, reapplication with new plan and project |
| 7. Environmental license | Ministry of Environment along with regional Authorities and Ministry of cultural Patrimony |
| 8. Building license & Tendering for construction | Ministry of Transport and Infrastructure signs license and tendering process is started. |
| 9. Building & Construction | 9 months from May 2004 to January 2005 |
| 10. In production | The line was put in operation |
| 11. Redemption agreement license & implementation | The redemption package included a commitment to transform/put other old 220 kV lines in underground cable and some powering of other HV overhead power lines. Additionally some finance compensation to local authorities for parks and so on. The works planning is scheduled up to 2016. |

## 5. Building and construction authorisation and permit process in Finland

Two examples of building and construction authorisation and permit processes in Finland are included:

- Ulvila - Kangasala 400 kV overhead line
- Estlink DC interconnector between Finland and Estonia

Location of projects is shown in map attached.

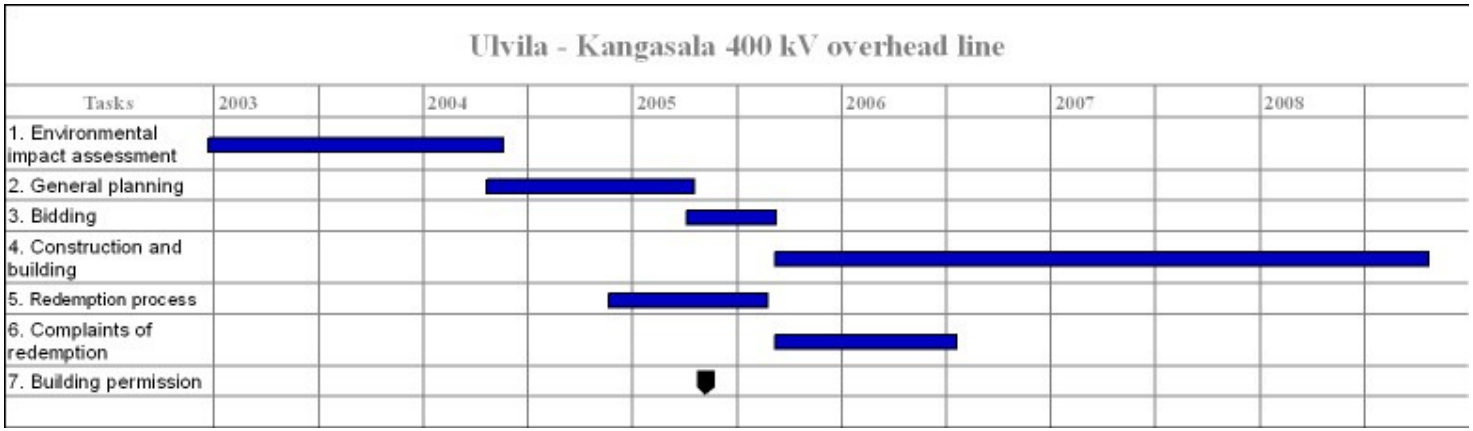


## 5.1. Building and construction authorisation and permit process of 400 kV overhead line Ulvila – Kangasala in Finland

**Description of project:**

Line is between Ulvila and Kangasala in western part of Finland. It is overhead line of voltage level 400 kV. Length of the line is around 130 kilometres, 40 kilometres is in urban region and 90 kilometres has been built in agriculture or forestry region (there are also some water crossings).

**Process diagram of the project:**




**Explanation:**

1. Environmental impact assessment of the 400 kV overhead line was executed between November 2002 and May 2004. The public debate and hearing is included in the EIA-process. The Finnish Act on Environmental Impact Assessment Procedures applies to all projects that may be expected to have considerable negative environmental impacts. The EIA-procedure concerns power lines with a voltage of 220 kV or more and longer than 15 km. The EIA procedure may also be required for individual projects where harmful environmental impact is likely, on the basis of the decisions made by the Ministry of the Environment. The EIA includes the environmental assessment of alternative routes of power lines. Interest groups like all concerned and NGOs as well as the municipalities and governmental units may give declarations about the EIA-programme and EIA-report. The regional environmental centre (REC) provides then summarises these declarations and adds its own declaration. The content of the REC declaration should be taken into account in the planning process of the power line. The precise line route is then chosen after the EIA-procedure is finalised.

2. General planning of the 400 kV overhead line was executed between April 2004 and April 2005. The general design includes field investigations and technical planning.

3. Bidding for construction and building of the 400 kV overhead line was executed between April 2005 and August 2005.

4. Construction and building of the 400 kV overhead line started August 2005 and is scheduled to end October 2008.

5 - 6. TSO started the redemption process of the land in November 2004 and government granted permission for redemption in August 2005. Landowners appealed to Supreme Administrative Court, which confirmed the decision made by government in July 2006. The appeal process in Supreme Administrative Court delayed the building of the 400 kV overhead line in areas where appeals existed from the original time schedule. When the redemption procedure of the line area was finalised the building phase started on the total length of line.

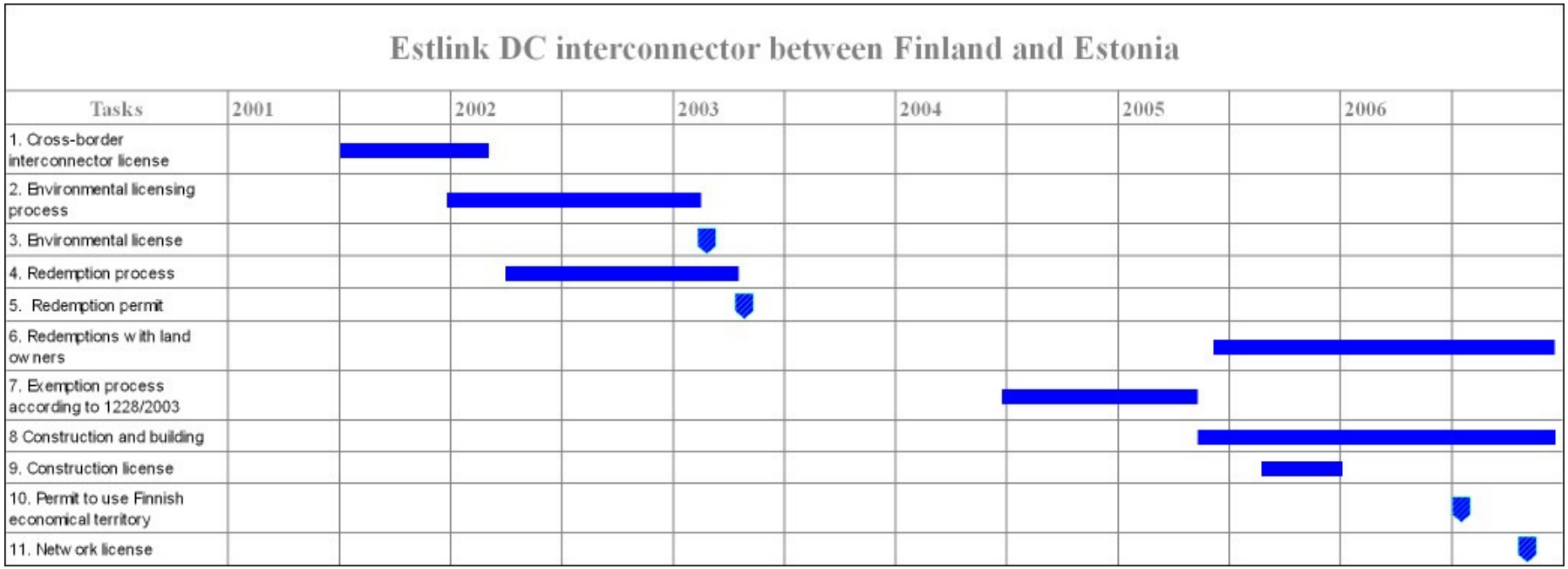
7. TSO applied for the building authorisation from the Energy Market Authority in March 2005 and building authorisation was granted in May 2005. The authorisation is required before the building of the power line is started. In the building authorisation decision, the Energy Market Authority assess the necessity of the line.

## 5.2. Building and construction authorisation and permit process of Estlink direct current interconnector between Finland and Estonia

**Description of project (Finnish side):**

DC interconnector (realised by HVDC Light ® by ABB) is between Finland and Estonia and consists of converter stations in Estonia and in Finland DC cable (both submarine and underground cable. Converter stations are located at Harku (Estonia) and at Espoo (Finland). Estlink is jointly owned by Baltic and Finnish power companies through AS Nordic Energy link (EST). Transmitted power is 350 MW with +/- 150 kV in both directions. Total length of the cable is 210 kilometres (2 times 105 kilometres) including 148 kilometres (2 times 74 kilometres) submarine cable and 62 kilometres (2 times 31 kilometres) underground cable.

**Process diagram of the Estlink project:**



**Explanation:**

1. Application for cross-border interconnector license was sent to Ministry of Trade and Industry in August 2001. The license was granted in February 2002. License process for interconnector includes also public consultation.

2 - 3. Application for environmental license was sent to environmental authority in January 2002. EIA was not requested because of voltage level, however, a lighter environmental explanation was delivered during the process. Environmental license was granted in February 2003.

4 - 6. Government granted redemption in April 2003, which was applied in April 2002 by the Estlink project. Redemption process with landowners started in May 2005 and will continue until 2018 when landowners may apply for final compensations on all impact (also hidden impact) of the cable. (Remark: In Estonia such redemption process does not exist).

7. Exemption according to the Regulation 1228/2003 stated with informal meeting between Energy Market Authority (EMV) and the Estlink project in July 2004. Application for exemption was delivered to EMV in September 2004 and about two weeks later the Project delivered application to Estonian Ministry of Economic Affairs and Communications. According to Finnish legislation, the powers to grant exemptions were somewhat unclear in autumn 2004 but were resolved when revised Electricity Market Act in the end of 2004 gave the mandate to EMV to supervise the Regulation 1228/2003. After requirements for some supplementary documentation and analysis from the Project, EMV granted exemption (Finnish side) in February 2005 and notified the European Commission. Estonian Ministry of Economic Affairs and Communications also granted exemption in February 2005. In April 2005, EC sent a letter to EMV and Estonian Ministry that EC did not have any objections to the exemption.

8. Construction and building of Estlink started April 2005 when all relevant agreements were signed between owners of the Estlink and between Estlink owners and the vendor ABB ('turn key' purchase agreement). The signing of agreements was triggered by the letter from European Commission stating it had no objections to the exemption in April 2005.

9. Construction license for converter station was applied to local municipalities in September 2005. Due to unfinished regional planning the building in the converter station area required an exemption. The exemption was granted by regional environmental centre in January 2006 after consultation process.

10. According to newly revised legislation in Finland, the Project applied to the Ministry of Trade and Industry for permission to use Finnish economical territory in July 2007. The permission was granted within two weeks by Ministry of Trade and Industry.

11. According to Electricity Market Act network operator has to apply licence or exemption from the licence. In October 2006, the network operator of Estlink applied for exemption from network licence. Exemption was granted in December 2006.