



**LIETUVOS RESPUBLIKOS APLINKOS MINISTERIJA**  
**THE MINISTRY OF ENVIRONMENT OF THE REPUBLIC OF LITHUANIA**

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**REGARDING STRATEGIC ENVIRONMENTAL ASSESSMENT**

The Ministry of Environment of the Republic of Lithuania herewith is providing you the information regarding Strategic Environmental Assessment (SEA) of the plan for the development of the engineering infrastructure of the project for synchronization of the electric energy system of special state significance “Construction of Harmony Link connection and 330 kW switchyard “Darbėnai” ”.

Regarding this project development the SEA has shown that there are no foreseen impacts for the neighbouring territories; hence the transboundary consultations were not initiated. The Ministry of Energy of the Republic of Lithuania was advised to prepare a short information booklet about the project and the SEA summary in English language. Accordingly, please find the information booklet attached.

Please do not hesitate to consult, if any additional information is needed.

**ATTACHEMENT:**

1. SEA summary in English\_pdf., 5 p.

Viceminister

Darius Kvederavičius



# Plan for the development of the engineering infrastructure of the project for synchronization of the electric energy system of special state significance “Construction of Harmony Link connection and 330 kW switchyard “Darbėnai””

## SUMMARY OF THE CONCEPT ASSESSMENT AND STRATEGIC ENVIRONMENTAL IMPACT ASSESSMENT REPORT

The President of the Republic of Lithuania together with the Prime Ministers of Latvia, Estonia and Poland and the Chairman of the European Commission on 28 June 2018 signed a political agreement on the synchronization of the electricity networks of the three Baltic States with the electricity networks of the continental Europe through the electricity system of the Republic of Poland. The agreement provides for the synchronization of the Baltic electricity systems with the continental European networks using the existing 400 kV AC line Alytus – Elk (LitPol Link) and the construction of a new sea DC connection from Lithuania to Poland.

### 1. General information

The planned sea connection with the Polish electricity system (Harmony link) will consist of a high-voltage direct current (hereinafter referred to as HVDC) cable, an optical cable and converter stations. In order to integrate the new cross-system DC connection with the Polish electricity system, the installation of 330 kW switchyard “Darbėnai” is necessary. The installation of the switchyard will allow connecting the DC cable line and the converter station to the Lithuanian electricity system. The Harmony Link connection between Lithuania and Poland is planned on the bottom of the Baltic Sea.

The converter station and 330 kW switchyard “Darbėnai” are planned to be as close as possible to the existing 330 kW power transmission air line Klaipėda - Grobinė (bordering or within the boundaries of the 330 kV EPL Klaipėda-Grobinė protection zone). Where necessary, the connection routes of 330 kW EPL Klaipėda-Grobinė and 330 kW ELP Darbėnai-Bitėnai to the 330 kW switchyard “Darbėnai” are planned.

### 2. The main construction works of the planned Harmony link connection

The installation of the Harmony Link connection and the 330 kW switchyard “Darbėnai” will be carried out in 4 stages: the installation of the planned Harmony Link connection in the sea part; the installation of the planned Harmony Link connection in the land part; the installation of a converter station and a 330 kW switchyard “Darbėnai”; the connection of the 330 kW switchyard “Darbėnai” to the existing 330 kW EPL Klaipėda-Grobinė and 330 kW ELP Darbėnai-Bitėnai.

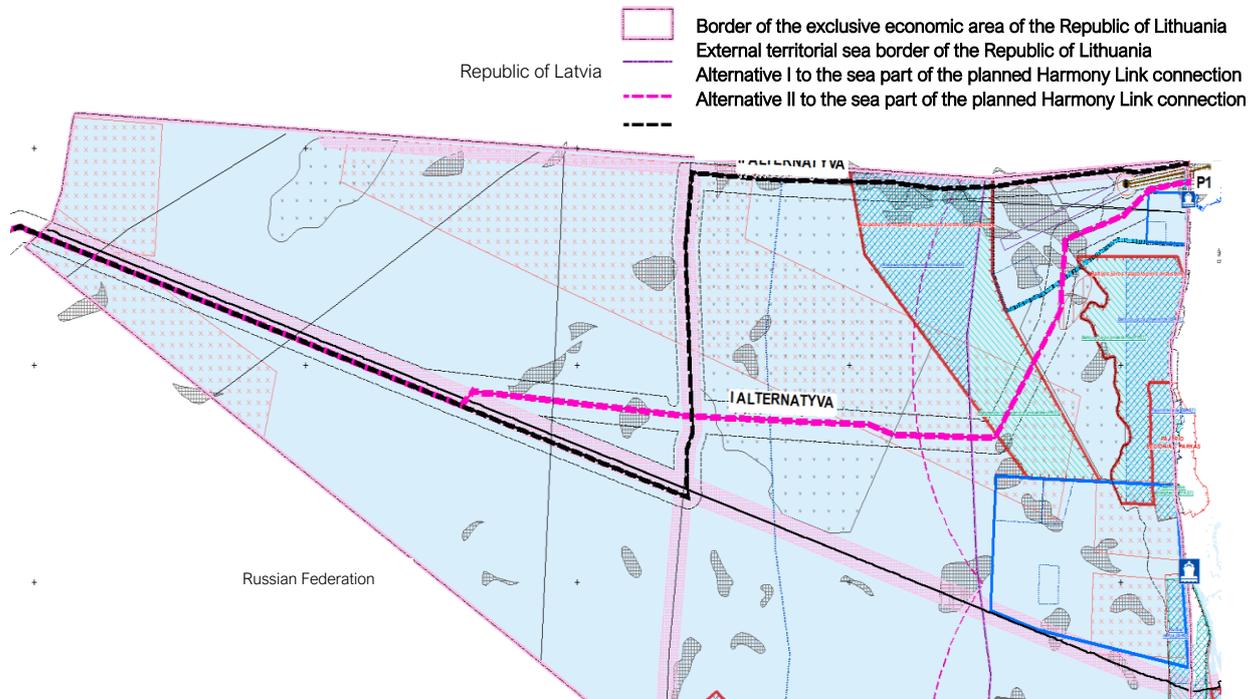
**Sea part.** A corridor up to 3000 m wide is planned for the installation of the planned Harmony Link connection in the Baltic Sea. Prior to the commencement of the cable-laying works, seabed surveys will be carried out and the cable-laying coordinates will be determined in the 300 - 500 m wide corridor. It is preliminarily planned that the cable will be recessed ~ 1 m to the bottom for most of the route using water jet. Other mechanical cable laying methods (excavation and backfilling) are possible on part of the route, especially on the foreland. If necessary, protection may be used by filling the cable with gravel or by laying a protective layer, i.e. protective plates, and etc.

**Land part.** According to the construction technology, a corridor of at least 16.5 m wide is required for laying the HVDC underground cable on land. In environmentally sensitive areas, it is recommended to carry out the construction of the underground cable in a closed way using trenchless technologies - horizontal forging or drilling. Temporary access roads will be installed at the planned Harmony route during construction.

### 3. Selection of concept alternatives

**Selection of alternatives to the corridors of the sea part.** On 22 January 2020, the Harmony Link - marine survey consultancy of the sea part including landing points on shores of Poland and Lithuania (hereinafter - Marine Survey) was conducted. After the spatial assessment of the marine environment, geological conditions, oceanographic and natural marine environment assessment, two cable installation sites-alternatives in the Baltic Sea were selected and cable exit points on the Baltic Sea shore (P1, P2) along Būtingė in the Palanga municipality territory were planned.

Oil-promising structures with assumed forecast resources are found in the Baltic Sea area: 2205 ha area is crossed in the case of Alternative I, and 2592 ha of oil-promising structures area is crossed in the case of Alternative II. In areas of oil-promising structures (for oil search, exploration and / or production activities), 3D and 2D seismic exploration methods may be carried out, which may adversely affect the laid underwater cable in the case of Alternative II. In the sea area of the Baltic Sea, in the territorial waters of the Republic of Latvia, in addition to the sea areas of the Northern part of the Republic of Lithuania, permits for oil search, exploration and production have been issued. The decisions of the sea part of the General Plan of the Republic of Latvia provide for areas for which new permits for oil search, exploration and production may be issued.



**Picture 1.** Concept alternatives for the sea part

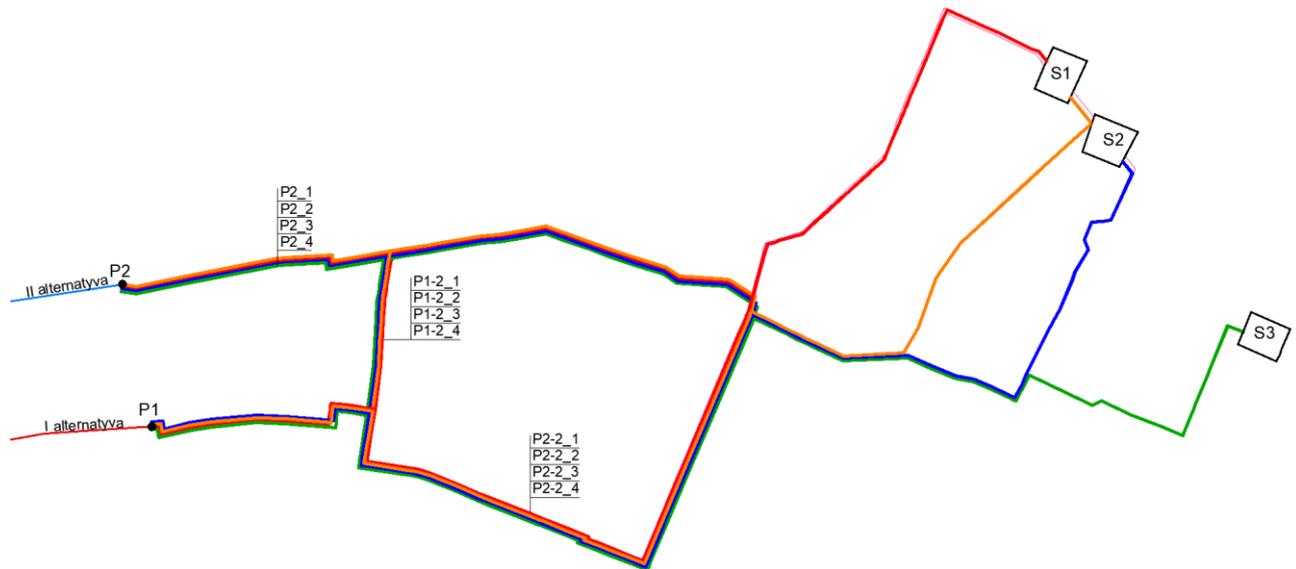
**Selection of alternatives for the construction site of the converter station and 330 kW switchyard “Darbėnai”.** When choosing the location for the construction of the converter station and 330 kW switchyard “Darbėnai”, the priority is given to the Darbėnai eldership, Kretinga district municipality, in proximity to the 330 kW OL Klaipėda - Grobinė, farther from residential areas, taking into account, inter alia, the development of residential areas. Three local alternatives S1 (Benaičiai village), S2 (Žyneliai village) and S3 (Ežkečiai village) have been selected for the construction of the converter station with the 330 kW switchyard.

**Selection of alternatives for the underground cable routes of the land part.** The installation of the line engineering infrastructure is carried out by creating engineering infrastructure corridors.

On the land part, concept alternatives (picture 2) for the installation of the underground cable of the land plot to the underwater cable points of the sea part, i.e. P1, P2, and points S1 (I alternative), as well as the provided locations for points S2 (2 alternative) and S3 (III alternative) for the planned switchyard and the converter, in which the cable routes on the land part are divided into three groups, are selected for the underground cable routes of the land part:

1) from the alternative point P1 of the sea part to the converter station and 330 kW switchyard (S1, S2, S3), the cable routes are planned to be parallel to the main road A13 and the main oil pipeline;

2) from the alternative point P1 of the sea part to the converter station and 330 kW switchyard (S1, S2, S3), the route cables are planned parallel to the main road A13 and near the road corridor of local significance from the town of Darbėnai to the settlement of Šventoji, parallel to 110 kW OL Benaičiai VE - Šventoji (existing within the boundaries of the protection zones); 3) from the alternative point P2 of the sea part to the converter station and 330 kW switchyards (S1, S2, S3), the cable routes are planned to be parallel to the main oil pipeline.



**Picture 2.** Plan with concept alternatives for the land part

#### 4. Strategic environmental impact assessment

In accordance with the Description of the Procedure for Strategic Environmental Impact Assessment of Plans and Programs approved by resolution of the Government of the Republic of Lithuania No 967 of 18 August 2004 (as amended by Resolution No 1467 of 23 December 2014), the strategic environmental impact assessment of the cable routes in the Baltic Sea and the land part, the converter station and the 330 kW switchyard "Darbėnai" and the impact on the following environmental components were assessed under the established procedure: protected areas including Natura 2000 territories; the natural framework and landscape; cultural heritage; public health and well-being; water and soil; forests and biodiversity; air and climate change; the sea environment; tangible assets.

No effects on environmental components have been identified in the assessment. The expected small impact on climate change is of global nature.

It has been established that all three planned alternatives for the location of the converter and 330 kW switchyard "Darbėnai" do not violate the principles of sustainable development and will not have a negative impact on the environment and adjacencies.

It has been established that the planned energy system synchronization project Harmony Link connection (sea part's I alternative) and the planned cable route alternatives (P1-1\_2; P1-2\_2; P1-1\_1 and P1-2\_1) in the land part to alternative I of the location of the planned converter station and 330 kW switchyard "Darbėnai" and the alternatives of the planned underground cable routes (P1-1\_2; P1-1\_3; P1-2\_2 and P1-2\_3) to alternative II of the location of the planned converter station and 330 kW switchyard "Darbėnai" have advantages in terms of strategic environmental impact, as compared with other planned route alternatives and Alternative III of the location of the planned converter station and 330 kW switchyard "Darbėnai".

The impact on the Republic of Latvia was assessed during the strategic environmental impact assessment. The Harmony Link connection corridor does not cross the border of the Republic of Latvia and there is no direct physical contact with the state border:

- The possible cable exit points identified by the underwater cable in the land part of the sea alternative I (P1) and the sea alternative II (P2) are the nearest to the state border at 1058 m and 705 m, respectively.
- In Alternative II of the Sea Part, the underground cable route corridor is the nearest to the Latvian border and is about 368 m away from the territorial sea of the Republic of Latvia.
- The underground cable route corridor in the alternative II of the land part is planned nearest to the border of the Republic of Latvia (about 108-507 m).

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- In alternative I, the location of the converter station and 330 kW switchyard S1, which is planned in Benaičiai village, Darbėnai eldership, Kretinga district municipality, is the nearest to the Latvian border among the three alternatives in terms of distance to the Latvian border and is about 1900 m away from the state border.

The corridor of the sea part (Alternative II) is planned to be parallel to the border of the Republic of Lithuania and the Republic of Latvia, wherefore oil extraction processes in the waters of the Republic of Latvia may affect the laying and operation of the cable. In this respect, Alternative I of the sea part is more favorable, as the cable-laying site in the Baltic Sea is far from the border of the Republic of Latvia.

For laying the cable in the Baltic Sea, no impact on the quality of the territorial sea environment of the Republic of Latvia has been established according to the 11 quality indicators (descriptors): 1) Biodiversity; 2) Non-native species introduced due to human activities; 3) populations of fish, molluscs and crustaceans used for commercial purposes; 4) Abundance and diversity of all known elements of sea food networks; 5) Human-induced eutrophication; 6) Seabed integrity; 7) Hydrographic conditions; 8) Concentration of pollutants; 9) Contaminants in fish and other seafood intended for human consumption; 10) marine litter; 11) Energy input, including underwater noise.

## DETALŪS METADUOMENYS

Dokumento sudarytojas (-ai)	Lietuvos Respublikos aplinkos ministerija, A. Jakšto g. 4, 01105 Vilnius
Dokumento pavadinimas (antraštė)	Regarding SEA information for Latvia_Harmony Link
Dokumento registracijos data ir numeris	2021-02-23 Nr. (14)-D8(E)-1184
Dokumento specifikacijos identifikavimo žymuo	ADOC-V1.0, GEDOC
Parašo paskirtis	Pasirašymas
Parašą sukūrusio asmens vardas, pavardė ir pareigos	DARIUS KVEDARAVIČIUS, Aplinkos viceministras
Parašo sukūrimo data ir laikas	2021-02-23 13:19:56
Parašo formatas	Trumpalaikis skaitmeninis parašas, kuriame taip pat saugoma sertifikato informacija
Laiko žymoje nurodytas laikas	
Informacija apie sertifikavimo paslaugų teikėją	ADIC CA-B
Sertifikato galiojimo laikas	2020-12-22 - 2023-12-22
Parašo paskirtis	Registravimas
Parašą sukūrusio asmens vardas, pavardė ir pareigos	Lina Krasauskienė, Vedėja
Parašo sukūrimo data ir laikas	2021-02-23 13:44:03
Parašo formatas	Trumpalaikis skaitmeninis parašas, kuriame taip pat saugoma sertifikato informacija
Laiko žymoje nurodytas laikas	
Informacija apie sertifikavimo paslaugų teikėją	RCSC IssuingCA
Sertifikato galiojimo laikas	2021-01-07 - 2023-01-07
Pagrindinio dokumento priedų skaičius	1
Pagrindinio dokumento pridedamų dokumentų skaičius	0
Programinės įrangos, kuria naudojantis sudarytas elektroninis dokumentas, pavadinimas	Elektroninė dokumentų valdymo sistema VDVIS, versija v. 3.04.02
El. dokumento įvykius aprašantys metaduomenys	
Informacija apie elektroninio dokumento ir elektroninio (-ių) parašo (-ų) tikrinimą (tikrinimo data)	El. dokumentas atitinka specifikacijos keliamus reikalavimus. Visi dokumente esantys elektroniniai parašai galioja. Tikrinimo data: 2021-02-23 13:44:17
Elektroninio dokumento nuorašo atspausdinimo data ir ją atspausdinęs darbuotojas	2021-02-23 atspausdino Lina Krasauskienė
Paieškos nuoroda	