

Wind Energy Development in Greece Licensing Issues & Regulatory Framework

June 2019

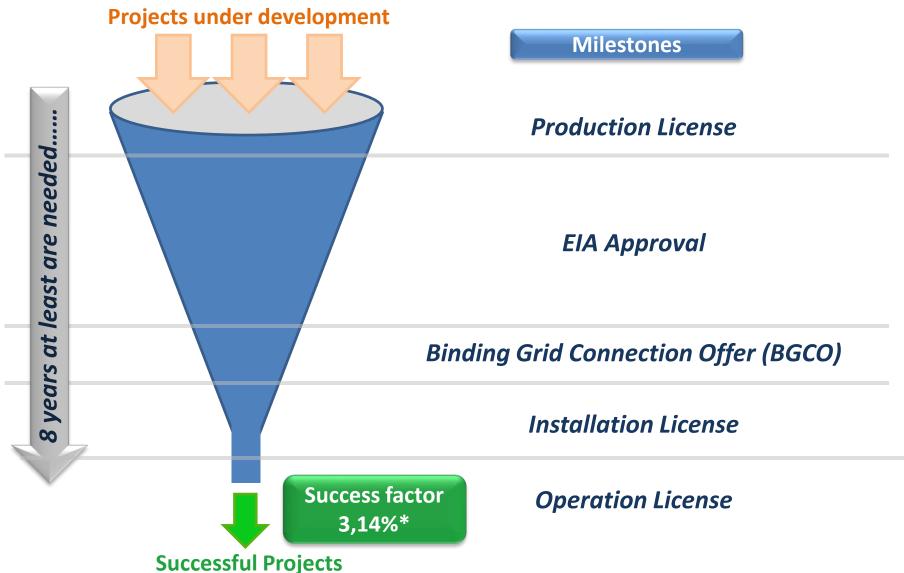


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Key License Milestones

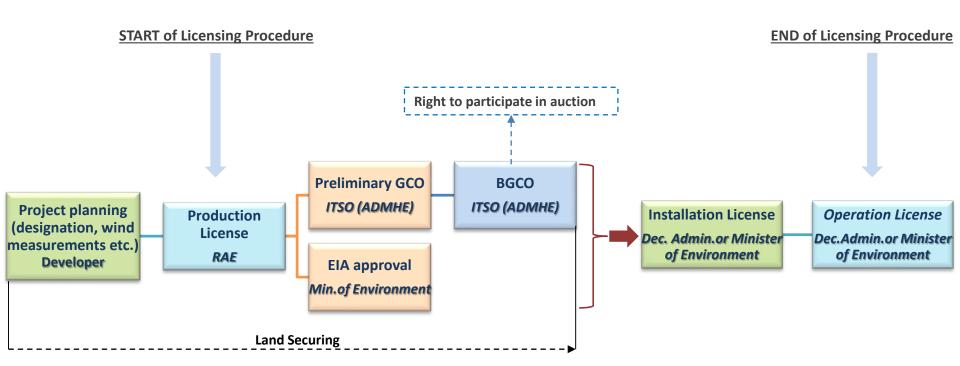




^{*} New Production Licenses and Operation Licenses during 6/2012-11/2017 in relation to projects under development on 6/2012

Overview of Key License Milestones





Footnotes:

Requirements to obtain BGCO

- 1. The interconnection of the project with the local network should be technically feasible (*not saturated networks)
- 2. Bank Guarantee should be submitted within 2 months after the issuance of the BGCO. The amount of B.G. depends on project's total capacity.
- 3. In case of saturated networks, the power reservation (when there is availability for interconnection) will be allocated by ADMIE or DEDDHE to the RES stations based on the priority order derived from the date list of the submitted BGCOs applications.

Installation & Operation Licenses

- 1. For projects which are classified in Category A1, the Ministry of Environment is the competent authority for the Installation & Operation Licenses issuance.
- 2. For projects which are classified in Categories A2 and B, the Decentralized Administration is the competent authority for the Installation & Operation Licenses issuance.

1

Production License



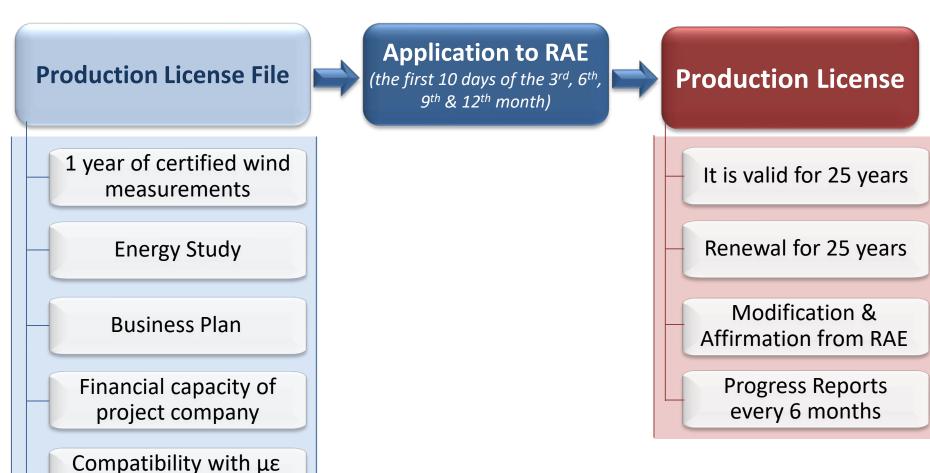
Production License Application

RES-Spatial Planning

Other supporting

documents





Basic Statutory Framework

- 1. Law 3468/2006 as valid (OG 129A)
- 2. Production Licensing Regulation (OG 2373 B/2011)

RAE after the issuance of Production License



RAE is supervising the licensing procedure even after the Production License issuance:

- 6-month Progress Reports (*«the licensee should act on all necessary actions without delay so as to issue the Production License»*)
- Special annual levy for Production License preservation (1.000 €/MW)
 - o Law 4152/2013 (OG 107A), Law 4342/2015 (OG 143A)
 - Non-payment of special levy would result in <u>automatic</u> <u>termination of Production License</u>
- Possibility for auditing the Bank Guarantee submission regarding the Binding Connection

Licensing Registry & Geoinformation Map

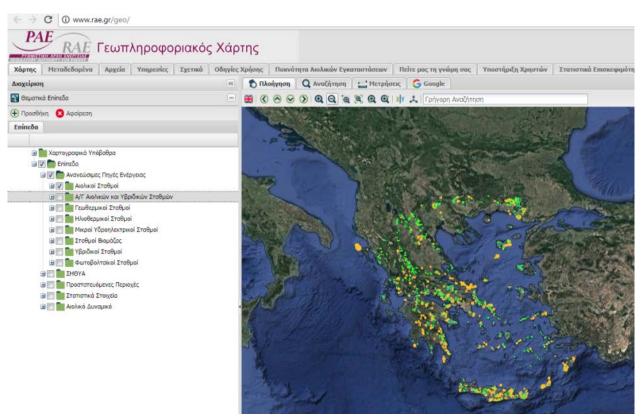


Registry of applications, production licenses, negative opinions:

http://www.rae.gr/site/categories new/renewable power/licence/licence files.csp

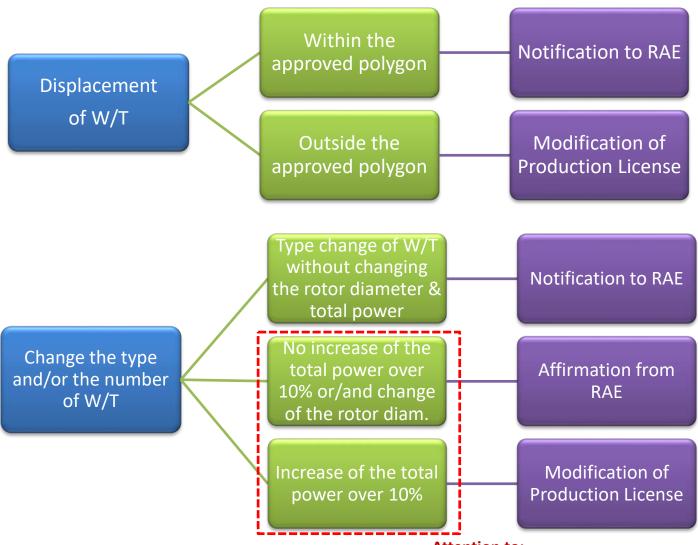
[Also: http://www.ypeka.gr/Default.aspx?tabid=701&language=el-GR until 2014]

Geoinformation Map of RAE: http://www.rae.gr/geo/



Displacement & Type Change of W/T





Attention to:

- 1. Saturated networks
- 2. Carrying Capacity & criterion 2,5 D (see RES spatial planning)

2

Environmental Licensing



Environmental Licensing: Historical Retrospection





L.1650/1986 (Directive 85/337/EOK)

- Simple procedure (practically only screening)
- Questionnaire completion



L.3010/2002 (Directive 97/11/EK)

- Reinforcement of scoping (upgrade of EIA)
- Preliminary EIA
- Special treatment in protected areas

• Special Ecological Assessment
• Appropriate Assessment

Basic Regulatory Framework of the last decade



2008

Special Spatial Planning Framework for RES (OG 2464B/2008)

2010

MD 37338/2010 (OG 1495 B) for SPAs, species of designation

2011

- L. 4014/2011* (OG 209A) for environmental licensing
- L. 3937/2011 (OG 60A) for biodiversity conservation

2012

MD 8353/2012 (OG 415B) for SPA, measures-limitations

2013

MD 167563/2013 (OG964B): new procedure for Environmental Licensing

2014

MD 170225/2014 (OG 135A): EIA Specifications

L. 4280/2014 (OG 159A): reforestation of the same area as the interventions

^{*}Complete list of accompanying MDs of Law 4014/2011: http://www.ypeka.gr/Default.aspx?tabid=804&language=el-GR#n4014

Special Spatial Planning Framework for RES



Main predictions Carrying Capacity* =max. density of typical W/T per municipality 4% on islands • 5% in Wind Suitability Areas** • 8% in Wind Priority Areas **Exclusion Areas** Criteria for inclusion in the landscape **Distances from Land Use**

- Approved after Strategic Environmental Assessment (SEA)
- It has been validated by Supreme Administrative Court (Decision 1422/2013)
- Legal basis for many court decisions
- Transparency and equal treatment for all projects

The review process of RES Spatial Planning is in progress

^{*} For current allowance per Municipality see: www.rae.gr/geo

^{**} Rest of continental country (other than Wind Priority Areas)

Exclusion Zones for Wind Energy









- Strict Nature Reserves & Nature Reserves
- National Park core zones, Aesthetic Forests
- Priority habitats of Natura 2000 (Dir 92/43/EEC)
- Ramsar Wetlands
- Sacred monuments of the world cultural heritage & other monuments of major importance
- Inside town plans and settlements' boundaries before 1923 or under 2000 residents
- Organized touristic areas and other production sectors etc, theme parks, tourist ports
- Quarries and surface mining and extractive zones
- Bathing water of Ministry for Environment relevant program

"Balancing"...in transitional provisions



1. RES Spatial Planning

Operation License, Installation License or EIA approval issued before the RES Spatial Planning publication remain legally valid. Review of Production License

2. L. 4014/2011

Renewal, modification of EIA approval issued before the law L.4014/2011 - or even afterwards, but on the basis of the pre-existing provisions — is executed with the implementation of the law L. 4014/2011 (potential requirement of Special Ecological Assessment for projects within Natura 2000 areas)

3. MD for SPAs

For EIA approvals issued according to the law L.4014/2011 there is a requirement for the undergrounding of HV lines inside SPAs.

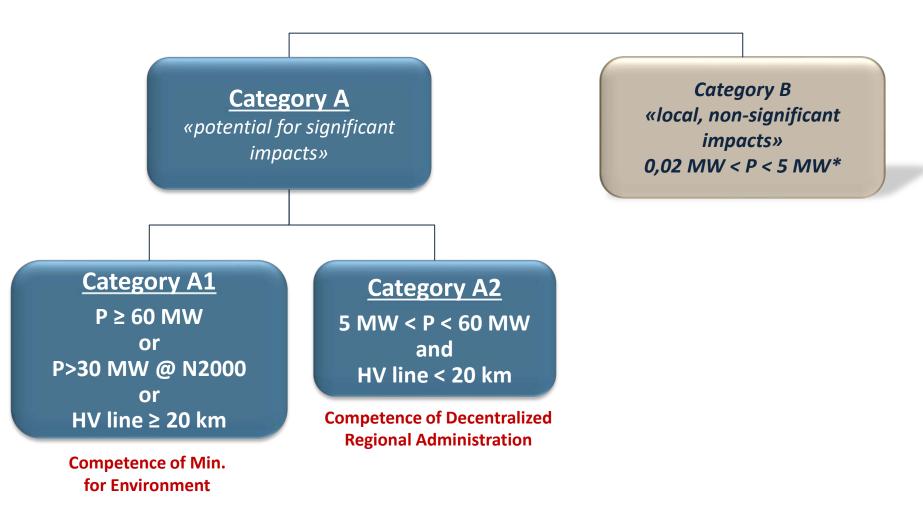
4. L.3937/2011 for biodiversity conservation

Prel. EIA or EIA approval issued before L.3937/2011 remain also legally valid after the establishment of a protected area inside the project's area (Exception: areas of Absolute Nature Protection)



Environmental classification of Wind Farms



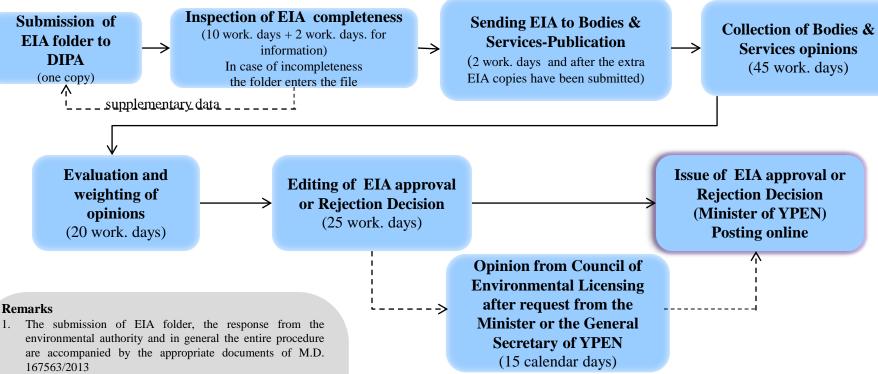


Legislation: L.4014/2011 (OG 209A), article 1 & MD 7674/10.8.2016 (OG 2471 B)

^{*} Exception include projects with P<0,02MW (e.g. within Natura 2000, near the seaside, next to other RES projects)

Category A1 Projects: Procedure for EIA Approval





- EIA approval also requires site intervention approval in case of innervations in forest areas
- 3. Within Natura areas, EIA also includes a Special Ecological Assessment as an Annex
- 4. In case of negative or ambiguous opinions, the project promoter is informed so as to submit any comments.
- 5. The duration of EIA approval process can be doubled for particularly complex projects by the decision of General Secretary of YPEN.
- 6. The EIA approval can be legally valid for 10 years (this time period can be shorter for special reasons)
- Contents of EIA: MD 170225/2014
- Contents of the decision of EIA approval: MD 48963/2012
- Registration of project data in the Electronic Environmental Register

Services

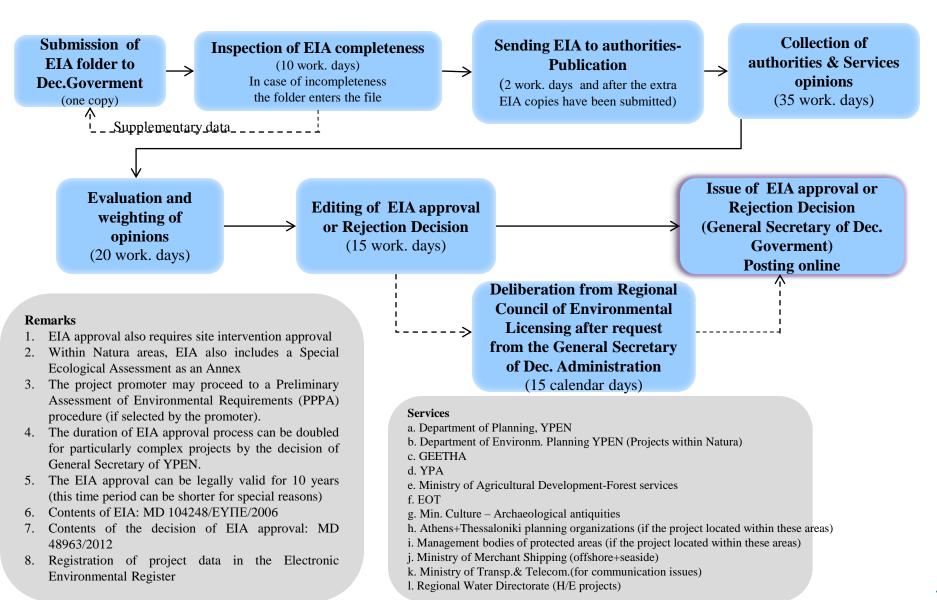
- a. Department of Planning, YPEN
- b. Department of Environm. Planning YPEN (Projects within Natura)
- c. General Military Staff
- d.Civil Aviation Authority
- e. Ministry of Agricultural Development-Forest services
- f. EOT
- g. Min. Culture Archaeological antiquities
- h. Athens+Thessaloniki planning organizations
- i. Management bodies of protected areas
- j. Ministry of Merchant Shipping (offshore+seaside) k. Ministry of Transp.& Telecom.(for communication issues)
- l. Regional Water Directorate (H/E projects)

Bodies

- 1. Regional Council (take into account opinions derived from the City Council as well as from local community or Municipal community councils)
- 2. Associations, organizations, NGOs, natural persons

Category A2 Projects: Procedure for EIA Approval

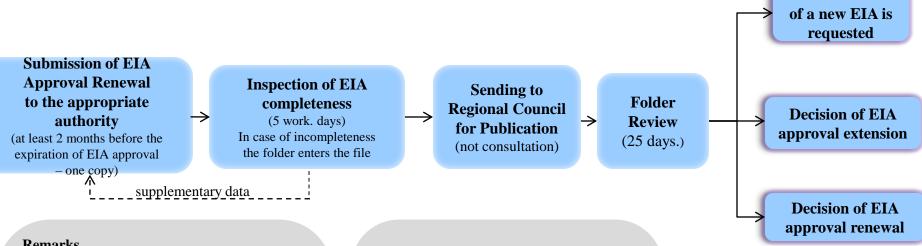




Renewal of EIA Approval



The submission



Remarks

- 1. The procedure is accompanied by the appropriate documents of Y. A. 167563/2013
- 2. The decision of EIA approval renewal/extension is issued by the General Secretary of the appropriate authority or by his hierarchical superior.
- 3. For a timely submission request of EIA approval renewal, the existing EIA approval remains legally valid until the fulfillment of the process.
- 4. The folder of EIA approval renewal contains the EIA renewal and possibly other documents which are defined by a Y.A. from YPEN.
- 5. For the EIA approval renewal the appropriate supplements regarding the environmental terms are made, while in the extension the duration of the initial EIA approval validity is extended.
- 6. Registration of project data in the Electronic **Environmental Register**

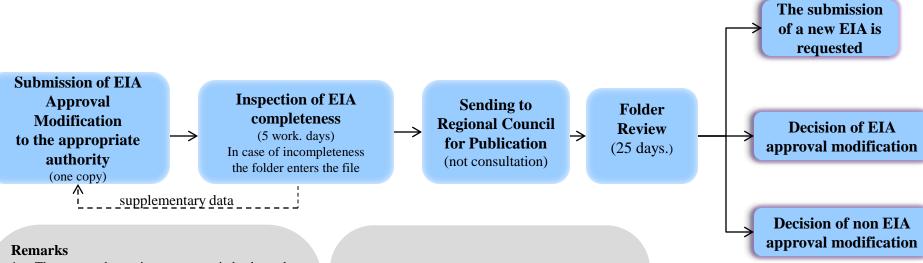
Contents of EIA Approval Renewal

- a. Brief technical description of the project b. Brief description regarding the parameters of the environment's present state, which have been modified during the validity of EIA approval. c. A brief description of the data obtained from the implementation of the monitoring and control
- program and their correlation with the approved environmental terms (referred in EIA approval). d. Proposals for the modification of the environmental terms and restrictions (included in the EIA approval), since they occurred from any modifications or additions of environmental regulations during the period after the EIA

approval issue.

Modification of EIA Approval





- 1. The procedure is accompanied by the appropriate documents of Y. A. 167563/2013
- The decision of EIA approval modification is issued by the General Secretary of the appropriate authority or by his hierarchical superior
- 3. The project promoter may submit a new EIA from the beginning if he/she considers that there are substantial changes
- 4. For a timely submission request of EIA approval modification, the existing EIA approval remains legally valid until the fulfillment of the process
- 5. The folder of EIA approval modification contains the EIA modification and possibly other documents which are defined by a Y.A. from YPEN
- 6. Registration of project data in the Electronic Environmental Register

Contents of EIA Approval Modification

- a. Technical description of the licensed and proposed modified project
- b. the parameters of the environment's present state only in relation to the requested modification
- c. A brief description of the data obtained from the implementation of the monitoring and control program.
- d. Impact assessment of the requested modifications
- e. proposals, conditions and measures to address the potential impacts of the requested modification

Evaluation of Final Project Study



A. MODIFICATION OF FINAL PLANNING

Submission of a final planning compliance folder to the appropriate authority prior to construction starting

The folder is an element of updating the EIA file (this is not approved)

B. ESTABLISHMENTS AFTER EIA APPROVAL

Submission of Technical Environmental Assessment (TEPEM) to the appropriate authority

(Services opinions are required)

Approval by the General Director of Environmental Authority

Remarks

- 1. The procedure is accompanied by the appropriate documents of Y. A. 167563/2013
- 2. Case A concerns occasions where implementation studies that anticipate EIA approval, differentiated in relation to the study for which the EIA approval was issued.
- 3. Case B concerns worksites, warehouse chambers, motorway service stations, service and maintenance centers, toll stations, anti-noise protection works.
- 4. The final planning compliance folder documents that there are no significant negative environmental variations regarding environmental impacts.
- 5. Registration of project data in the Electronic Environmental Register

Contents of the final planning compliance folder

a. Technical description of the final planning of the licensed project,
accompanied by drawings with a clear indication of the modifications
b. the documentation of the non-differentiation of the impacts on the environment

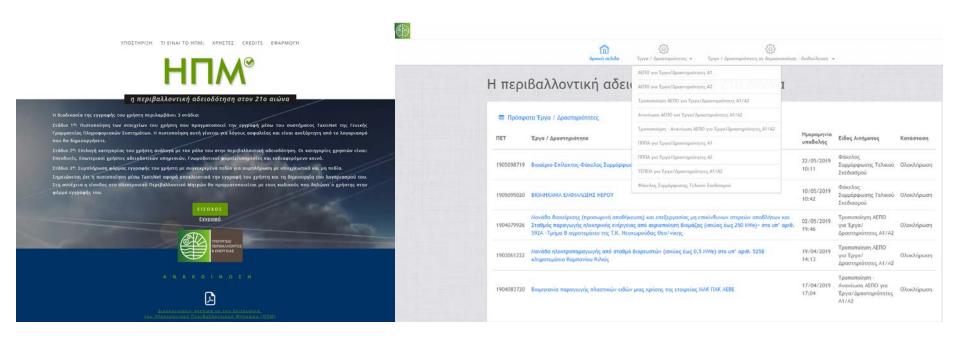
Contents of TEPEM

- a. Technical description of the specific technical object
- b. Special technical calculations and simulation models
- c. specialization in the technical details of the projects, measures and restrictions regarding the environmental protection
- d. Compliance of TEPEM with the EIA approval
- e. Topographic diagram and photographic documentation

Electronic Environmental Registry

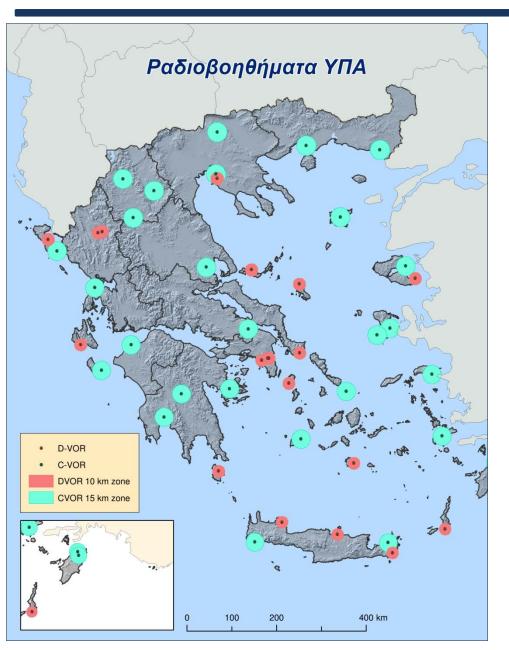


- Since July 5th 2018, the Electronic Environmental Registry (EER), which is an innovative operational tool of environmental policy, has been put into operation. The EER deals with bureaucracy and reduces time and cost of environmental licensing through transparent procedures. Furthermore, the EER supports all processes and all stages of environmental licensing and includes all the information regarding the environmental performance of a project or activity during its life cycle.
- ✓ All the project data, such as Environmental Approval, the Renewal and/or Modification of EIA approval, the Final Planning Compliance File, etc. are includes in the EER.



Civil Aviation Authority radars





Radar Type	Control Zone of YPA
C-VOR	15 km
D-VOR	10 km

VOR: VHF Omni-directional Range (C: conventional, D: Doppler)

Licensed projects <u>seem to be</u> at no risk

Questions:

- What happens in case of changing the type of the W/T?
- How many W/T are tolerated within the control zone of each radar?

"Flexibility" of Civil Aviation Authority for W/T shifting:

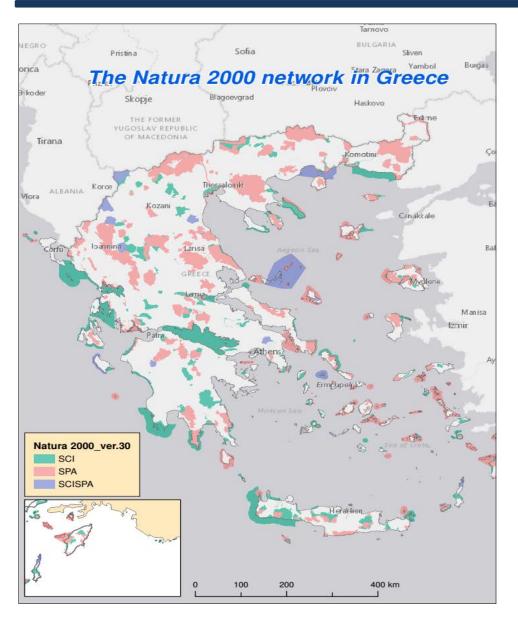
- Until **30 m** horizontally
- Until +5 m vertically

Basic Regulatory Framework

- 1. MD $\Delta 3/\Delta/3271/781/27.1.2009$ (OG 191B)
- 2. ICAO, European Guidance Material on managing building restricted areas, November 2015

Natura 2000 Network in Greece



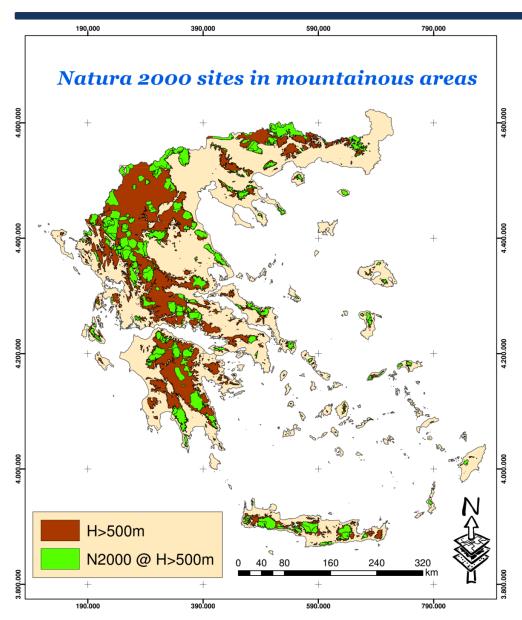


Expansion of Natura 2000 Network (version 30, December 2017)
www.ypeka.gr & OG 4432B/2017

- 32 new sites (mainly marine)
- 446 sites in total
- Total coverage ~72.500 km² (land & marine)
- >27% of the land area of the country belongs to Natura 2000 network (Nr 7 in EU-28)

Natura 2000 coverage





Sites with altitude > 500 m*



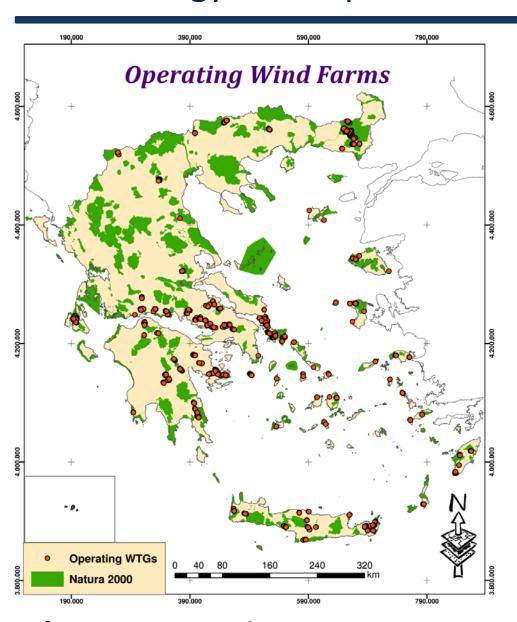
37,1% of the land area it is covered by N2000

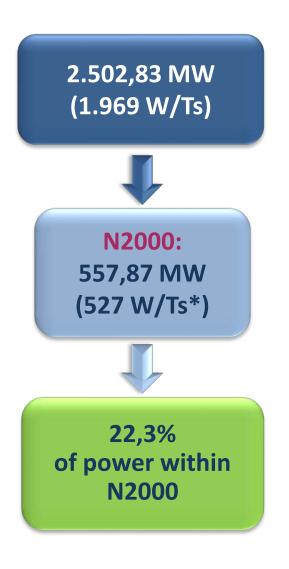
* 720 m is the average altitude of the W/Ts which are already in operation

Reference: RAE, November 2017

Wind energy development & Natura 2000







* avg: P=1,06MW, D=54,3 m

Displacement & Type Change of W/T(for EIA approval)



Check List:

- ✓ Are Road and Platforms changes required? Are there widenings in private areas?
- ✓ Is there an allowance for carrying capacity?
- ✓ Has a new Natura 2000 site been established in the area?
- ✓ Are W/Ts located in/out of the Civil Aviation Authority radar control zones?
- ✓ Is there an EIA approval with the provisions of the L. 4014/2011 or with a previous legal framework?
- ✓ Has EIA approval been issued before the implementation of the updated forest law (L.4280/2014)?
- ✓ Is there any issue of saturation in the interconnection grid?

References for Environmental Information



- EIA approvals, modifications, renewals etc.: http://aepo.ypeka.gr/ & Diavgeia
- 2. Natura Network 2000: www.ypeka.gr
- 3. Studies for Natura 2000 sites: http://www.ypeka.gr/Default.aspx?tabid=539&language=el-GR
- 4. Important Bird Areas: http://www.ornithologiki.gr/page_in.php?sID=68
- 5. Information on a set of Protected Areas (Natura 2000, Ramsar Wetlands, small island wetlands, wildlife shelters, etc.): http://oikoskopio.gr/map/ (WWF)
- 6. EU Guidance document: Wind energy developments & Natura 2000 (the update process is in progress)
- 7. Demonstration of good practices to minimize impacts of wind farms on biodiversity in Greece , LIFE12 BIO/GR/000554: http://windfarms-wildlife.gr

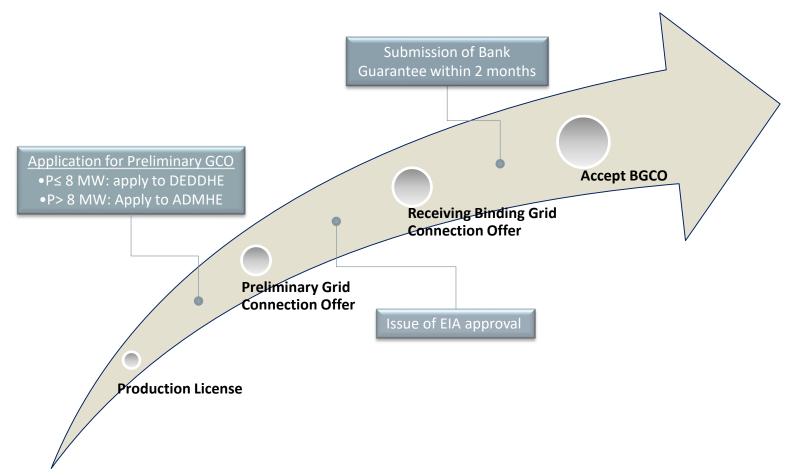
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Electrical Interconnection



Procedure to obtain BGCO

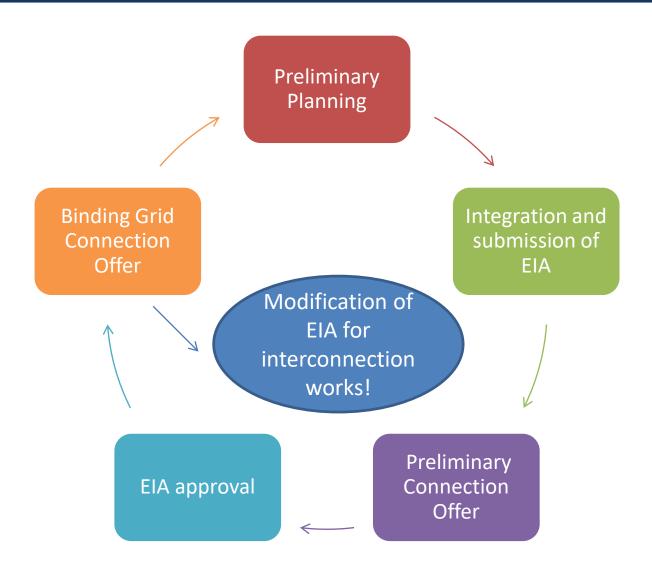




 ✓ After the issue of Production License, an application to obtain BGCO is submitted

Procedure for receiving BGCO(1)





Procedure for receiving BGCO(2)



- 5. Once the binding connection offer is made, the beneficiary acts:
- a) For receiving the installation license according to the provisions of the present article
- b) For the fulfillment of the Grid Connection Agreement and the Purchase Agreement, according to articles 9, 10 and 12 as well as the Grid Control Codes of the System and the Network. The aforementioned Agreements are signed and are legally valid once the installation license has been obtained (if this is required).
- c) For receiving all the appropriate licenses, protocols or other approvals, which may be required according to the provisions of the applicable legislation regarding the installation of the W/F. The aforementioned documents are issued without the obligation to obtain the installation license before.
- d) For the modification of EIA approval regarding the interconnection works, if required

ntegration and submission of EIA



BGCO: Guarantee requirements and duration of validity



1

Guarantee obligation: B.G. amount depending on the size of the W/F (L.4152/2013 & L.4342/2015)

7

3 years of the BGCO's validity until the Connection Agreement is made – under the condition of the timely EIA approval submission

3

The validity period of BGCOs follows the one of Installation License

<u>.</u>

In case of not submitting the B.G., a new request may be submitted after 1 year

E

If the 3-year period ends, the B.G. is forfeited

Steps from BGCO to the Installation License



1

Issuance of Site Suitability Certificate for the substation

2

Preliminary Approval of the interconnection works routing

3

Topographic Diagram with the interconnection works

4

Validation of Topographic Diagrams from the competent Operator

E

In case of changes: The process is repeated (restatement of BGCO, Suitability Certificate, etc.)

Degrees of freedom for the interconnection planning



According to article 11 of the L.3468/2006:

- The production license holder <u>may choose the connection point</u>, among the medium voltage central panel of the R.E.S. station and the terminal voltage-lifting substation, <u>and</u> the new substation should belong to its ownership, up to the System boundaries.
- The production license holder constructs the interconnection works, which belong to his ownership and acquires the management and the responsibility for the operation and maintenance of these works.
- The voltage and other technical and functional characteristics of the interconnection works owned by the holder of the relevant production license shall be <u>determined by it</u>, <u>subject to their compliance with the relevant international regulations and the minimum requirements of the System Owner and the competent Administrator, in order to achieve smooth connection and co-operation with the Electrical System with regards to high voltage or ultra-high voltage interrupters and communication and information exchange systems with the Electrical System.</u>
- The production license holder has no right to refuse the connection of a new project to the substation.

Public information for BGCO







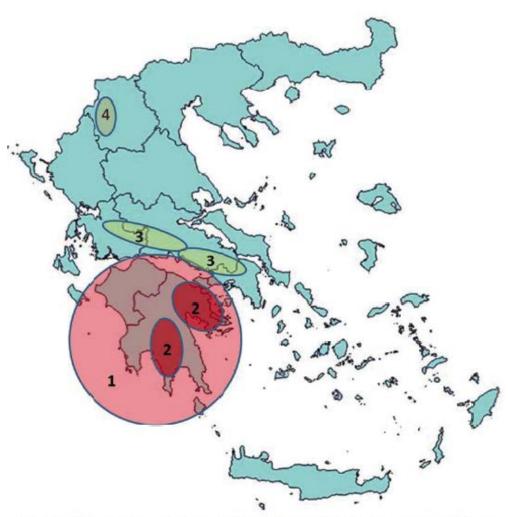


- ✓ Plenty of data for the BGCOs can be obtained from the relevant administrators (ADMHE, DEDDHE)
- ✓ Issue: not regularly updated data
- ✓ For the projects in operation, aggregated data are provided by LAGHE and its monthly bulletins
- ✓ DPA of ADMHE also provides important information

https://www.deddie.gr/el/sundeseis-stathmwn-ananewsimwn-pigwn-energeias-ape http://www.admie.gr/ape-sithya/stathmoi-ape-sithya-me-prosfora-syndesis/

Saturated Networks





Σχήμα 3 : Χάρτης κορεσμένων περιοχών στο Διασυνδεδεμένο Σύστημα¹¹ (1: Περιοχή σε κορεσμό με βάση την Απόφαση PAE 699/2012, 2: Τοπικός κορεσμός – υποσύνολο κορεσμένης περιοχής, 3: Κορεσμός από σταθμούς σε λειτουργία και με Δεσμευτική Προσφορά Σύνδεσης, 4: Περιοχή κοντά στον κορεσμό)

"Official" saturated areas



- Local saturations in subsets of regions
- Saturation in most cases is "fictitious"
- Solution is Overbooking

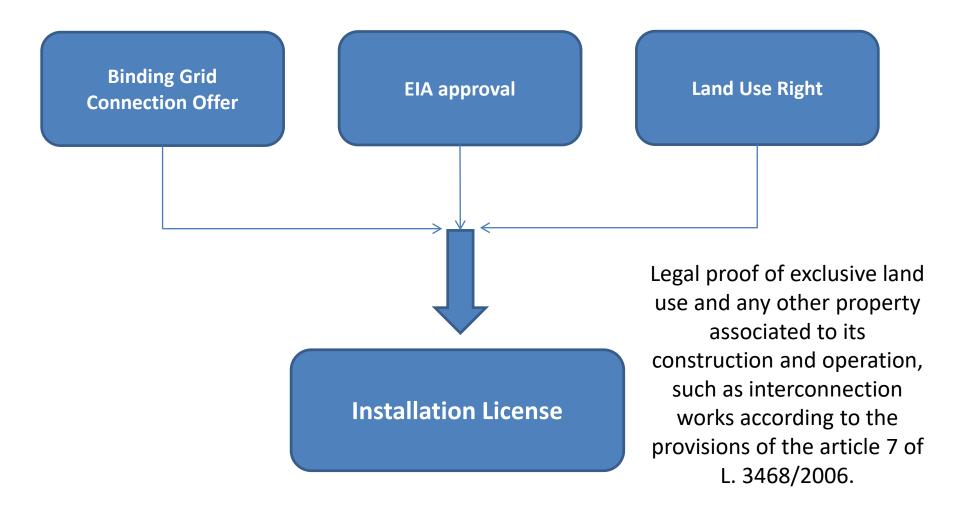
4

Installation License



Receiving Installation License





Duration of Installation License



It is issued "once" (no right to reissue Installation License)

Article 8, par. of 10 L.3468/2006 (as valid)

Initial duration of validation: 2 years

• There is a possibility of period extension

Possibility of extension period

- Under specific circumstances: 2 years of extension
- Possibility for an extra 18-month period extension

If the Installation License expires:

Revocation of Production License, imposing of other sanctions

Production License Extensions



Requirements for the 1st Extension of the Installation License (24 months)

- infrastructure projects or interconnection works corresponding to costs that excess 50% of their total cost have been conducted or
- Contracts for the procurement of electromechanical equipment have been signed or costs that excess 50% of the purchase cost of equipment have been incurred or
- there is an obligation under the regulatory framework for conducting a competitive procedure for the implementation of the project

Requirements for the 2nd Extension of the Installation License (18 months)

• The project has been executed, the cost of which covers 40% of the total investment cost.

In specific cases the possibility of a larger extension of Installation License is provided: Wind Farms complexes (with total capacity >150 MW), R.E.S. Projects which are connected via special underwater cable or other complex interconnection project

5

Forest Services



Installation of W/Fs in Forest Areas



- ✓ Fact: The existence of wind potential on the mountain peaks, which in most of the cases constitute forest areas-Therefore, there is a need for the installation of W/Fs in these areas as well.
- ✓ The electricity production by using Renewable Energy Sources is a form of general public interest, which allows the alteration of the destination of forest ecosystems, i.e. the exceptional clause of the relevant constitutional provision is fulfilled (article 24, paragraph 1, passage 4 of Constitution)
- ✓ The installation of W/Fs must be conducted as sparingly as possible and after having reasonably assessed that there is no way to meet the needs without altering the form of forest areas. The aforementioned needs must be met with the least possible loss of forest wealth-minimum damage to forest vegetation.
- ✓ Relevant case law of Council of State: Decision 2569/2004, 1508/2008.
- ✓ Indicative Legislation: Laws 998/1979, 2941/2001, 4280/2014

Engagement with Forest Services



For the W/Fs Licensing the involving of forest services is necessary at various stages during the licensing procedure

- ✓ Issue of Land Characterization
- ✓ Opinions about EIA in order for the EIA approval as well as Intervention Approval to be issued
- ✓ Information Characterization Act
- ✓ Road Study approval
- Restoration of disturbed areas study approval
- ✓ Reforestation Study approval
- ✓ Issue of Installation Protocol
- ✓ Other cases

- ✓ Forestry
- ✓ Forests Management R.U.
 - ✓ Forests Coordination Management

Decentralized Administration

✓ Central Services of Ministry of Environment

In case of planning modification:

Modification of all the aforementioned documents!

Informative Characterization Act by Forest Authority



- ✓ Details of the beneficiary,
- ✓ The boundaries, the location and the area of the land,
- ✓ The purpose of the intervention,
- ✓ The amount of the exchange of use,
- ✓ The boundaries, the location and the area of the land to be reforested,
- ✓ The conditions for the restoration of the natural environment after the expiry of the duration of the intervention

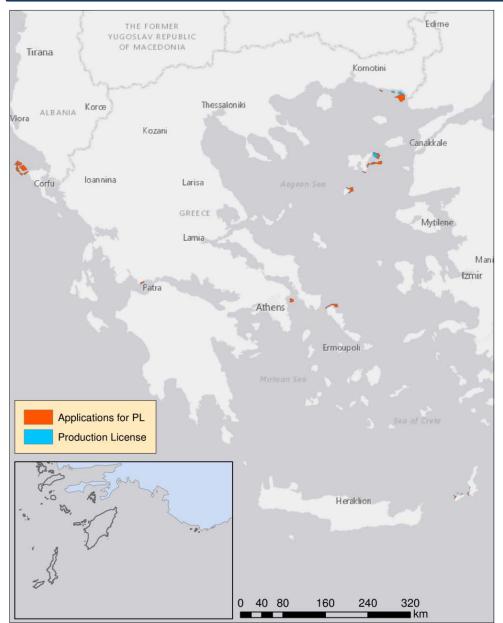
6

Offshore Wind



Current Status





- At present <u>no Production License</u>
 <u>requests for offshore W/F may</u>
 <u>be submitted</u> (L.3851/2010)
- Pending application for
 Production License : 3796,35 MW
- **714,15 MW** with Production License (2 projects)



The Guide has been prepared by the Hellenic Wind Energy Association HWEA/ELETAEN for informative reasons. HWEA has made best effort to present at the most appropriate level the current licensing process in Greece. However, HWEA makes no warrantee and accepts no liability for the accuracy of the information included. This Guide cannot substitute a legal opinion on the procedures applied.

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