International Conference on Comprehensive Legal Framework for the Development of Offshore Wind Power Around the World

Room 103/203, Howard Civil Service International House
No. 30, Sec. 3, Shin-Sheng South Road. Taipei, Taiwan

International Conference on Comprehensive Legal Framework for the Development of Offshore Wind Power Around the World

DATE:
August22-23, 2016

VENUE:
Room 103,203,Howard Civil Service International House
No. 30, Sec. 3, Shin-Sheng South Road. Taipei, Taiwan

Organized by:
Institute of Law for Science and Technology, National Tsing Hua University
BioethicsandLawCenter, NationalTsingHuaUniversity

Co-organized by:
Office of Energy Policy for Bridging and Communication, National Energy Research Programme
College of Intellectual Property Studies, National Taiwan University of Science and Technology (NTUST)

Sponsored by:
MinistryofScienceandTechnology
Research Center for Humanities and Social Sciences, National Tsing Hua University
OfficeofResearch&Development, National Tsing Hua University

Conference Program

Day1: Monday, August 22, 2016

Venue: Room 103, 1F, Howard Civil Service International House

8:30 - 9:00	**Registration**
9:00- 10:00	**Opening Remarks** ❖ Tai-Wen HSU, Director, Office of Energy Policy for Bridging and Communication, National Energy Research Programme, Taiwan ❖ Chien-Te FAN, Professor, Institute of Law for Science and Technology, National Tsing Hua University, Taiwan. **Keynote Speech** ❖ Jing-Tang YANG, Director, National Energy Research Programme-Phase II, Taiwan **Tea Break and Group Photo**
10:00 - 11:30	**Session I: Taiwan's Policy and Law for the Development of Offshore Wind Power** **Moderator:**Chien-Te FAN, Professor, Institute of Law for Science and Technology, National Tsing Hua University, Taiwan. ❖ Offshore Wind Power Policy of Taiwan Robert Yie-Zu HU, VicePresident and General Director. Green Energy and Environment Research Laboratories,Industrial Technology Research Institute, Taiwan. ❖ An Overview of Current Offshore Wind Power Development in Taiwan Mao-Hsiung CHIANG, Professor, Department of Engineering Science and Ocean Engineering, National Taiwan University, Taiwan ❖ Legal Development of Offshore Wind Power in Taiwan Anton Ming-Zhi GAO, Associate Professor, Institute of Law for Science and Technology, National Tsing Hua University, Taiwan. ❖ Where are the hurdles? Comprehensive investigation of the administrative obstacles of developing renewable energy in Taiwan Max Kuan, Assistant Professor, National Taiwan University of Science and Technology, Taiwan.

11:30 - 12:30	**Round Table Discussion: TheRecommendationforTaiwan** **Moderator:**Navraj GHALEIGH, Senior Lecturer in Climate Law, University of Edinburgh, UK **Participants:**Allspeakersfromallsessions
12:30 - 14:00	**Lunch Break**
14:00 - 16:00	**Session II: Legal Regime in Offshore Wind Power in Europe** **Moderator:** Yueh-Hsun TSAI, AssociateProfessor, InstituteofLawforScienceandTechnology,NationalYulinTechnologyUniversity, Taiwan. ❖ United Kingdom Navraj GHALEIGH, Senior Lecturer in Climate Law, University of Edinburgh, UK. ❖ Germany Christian Maly,Lecturer, Leuphana Universität Lüneburg, Germany. ❖ Norway Catherine Banet, Associate Professor, Scandinavian Institute of Maritime Law, Oslo University, Norway. ❖ Denmark (VideoPresentation) Birgitte Egelund Olsen, Professor. Department of Law, Aarhus University, Denmark.
16:00 - 16:15	**Coffee Break**
16:15 - 17:20	❖ Italy Sandra Cassotta Pertoldi Bianchi, Assistant Professor, Department of Law, Aarhus University, Denmark. ❖ France Catherine Banet, Associate Professor, Scandinavian Institute of Maritime Law, Oslo University, Norway.
17:20-18:00	**Round Table Forum: The Lessons from European Countries** **Moderator:** Catherine Banet **Participants:** All speakers in the European Session

Offshore Wind Power in Italy: Regulatory Evolution & Barriers

By Sandra Cassotta and Ulla Steen[1]

[1] Sandra Cassotta is Associate Professor in International Environmental Law, Department of Law, The Faculty of Social Sciences of Aalborg University, Aalborg (Denmark), Research Associate (non-resident) at the Institute of Security and Development Policy, (ISDP), Stockholm, (Sweden) and external jump lecturer at Leuven University, KU (Belgium) to Malta University (Malta) in the LLM on Climate Change, Environment and Energy Law (non-resident lecturer). Ulla Steen is Head of Department of Law, The Faculty of Social Science of Aalborg Universit, Aalborg (Denmark). The authors would like to thank Fabrizio Penna, Senior Expert in the Cabinet Office of the Italian Ministry of the Environment and Protection of Land and Sea, Rome (Italy) and Associate Professor, Stefano Fanetti, University of Insubria, Como (Italy) for kindly provide some advice material and data. The main contat author can be reached at: SACP@law.au.dk

in terms of reduction of Green Gas Emissions (GHG), and will favour the labour market, technologic development, and exports.
Nevertheless, the legal and policy framework applying to the sector must occur in harmony with important environmental and socioeconomic needs in order to guarantee sustainable development and the acceptance of public opinion to avoid what is called the " Not In My Backyard" (NIMBY) syndrome occurring when local governments and political parties oppose and protest against renewable energy installations. In order to permit the Italian offshore wind energy power sector to achieve its role and finally to make use of its huge potential, there are some regulatory obstacles to be overcome. A better and simpler regulatory licensing process and a more efficient access to electric grids are fundamental. There is a need to eliminate administrative barriers compared to the traditional renewable energy sources and this is the key problem in the Italian offshore wind power energy sector. In addition, there are some concerns as to the possible impact of offshore farms. In that respect, the offshore wind power sector must be respectful of the EU environmental legislation, which offers a very detailed legal and policy framework common to all Member States of the EU, in order to find solutions when problems of conflicts between national practices and the protection of the environment may arise. The mechanism of the EU sources of law and policy guarantees that the development of offshore wind power energy occurs in a sustainable way and reduces to a minimum its impact on the environment. In order to achieve sustainable development objectives in this sector and limit the potential impact of offshore wind farms on nature, it is fundamental to understand how and which type of legal duties an operator is supposed to respect in the phase of planning and management of offshore wind energy installation. This will be analysed in the next sections.

2.1 Geographical Distribution and the State of the Art of the Current Projects

The geographical distribution of the current proposed offshore wind energy farms is mostly concentrated in the southern of Italy and also in the two islands: Sicily and Sardinia. The regions of interests are Puglia in the south but also Tuscany and Molise, situated in the central area of the "boot". Most of the potential is on "deep waters" rather than "transitional waters" or "shallow waters".[2] With regards to offshore wind energy farms, 15 projects were presented to the government for approval in 2006-2013, but only 2 appear to have passed the stage of approval: one in the Gulf of Taranto, and another opposite to the Gela coast.[3] Actually, there is no single offshore wind farm operating yet in Italy at the present time of writing even though some of the projects have passed the environmental impact assessment (EIA) procedure.[4] Hence, one wonders what is the barrier in Italy for the offshore wind farm to be rendered operative? In theory, in Italy we find all the conditions to make this sector operative as the country presents huge potential. The Italian Wind Energy Association, ANEV (Associazione Nazionale Energia del Vento) estimates the offshore wind energy to 2.500 MW able to satisfy the needs of 1, 9 millions of families. In addition, in line with the EU legislations, the SEN estimated that offshore wind farms would reach the objective of 100 MW, which were supposed to be installed in 2013 and which should produce a 680 MW in 2020.
Nevertheless, the sector started to decline, especially in 2014 partly as a consequence of the decreased level of economic incentives, which had been very high in the past. This could have

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[2]Marchisio, A., "APER" *Italian Renewable Energy Association* – Seanergy 2020.
[3] Giugno, S., "*Eolico offshore, perché l'Italia non ha nemmento un impianto?*", La Stampa, 24.06.2015, at http://www.lastampa.it 2015/06/24/ scienza/ambiente/focus/eolico-offshore.
[4] Giugno, S., "*Eolico offshore, perché l'Italia non ha nemmento un impianto?*", La Stampa, 24.06.2015, at http://www.lastampa.it 2015/06/24/ scienza/ambiente/focus/eolico-offshore;Marchisio, A., "APER" *Italian Renewable Energy Association* – Seanergy 2020;Legambiente "*Trivelle SI, Eolico offshore NO?" Da Taranto a Termoli, da Gela a Manfredonia tutte le barriere all'eolico in mare e il via libera alle trivelle*" , 30.07.2014.

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serious impact not only on this sector, but also on Italy's ability to reach its 2020 objectives. For example, the decrease in the level of incentives has led to a breakdown of Italy's installations for the onshore wind power sector in 2014 (107 MW installed against a media of 800 in the past years). Currently, in Italy, onshore wind energy farms are thus operative but not the offshore ones. For all the offshore wind energy projects presented to the government for approval, there have always been problems in the licencing and permitting procedures, especially at the level of the authorization process even though several projects had their EIA approved. Several actors are involved in the authorization process, which sees administrative proceeding complicating the acceptance from different ministries, regions, municipalities and local entities which often enter into conflicts.
The legal framework is confused and it is not possible for offshore wind power installations to be subject to the same Guidelines (called "Guide Linea") that apply for onshore or other renewable energy installations. This is in total contrast with the practice of operators that apply for permits in other EU countries, such as Denmark, Germany, Spain or France, where the operators operate under much clearer legal frameworks. There is legal uncertainty as to how to evaluate projects, how to identify the areas to be protected, and how to inform citizens because on the sea it is not possible to apply the same guidelines applicable onshore. In Italy, the absence of a clear regulatory framework leaves open the possibility for public entities to block an offshore wind energy project, even if located several kilometres far from the coast or opposite to another installation or for landscape reasons and without any analysis of the projects. During Renzi's term in office, the choices in terms of changes in the regulatory and policy framework especially to simplify the authorization process have concerned fossil fuel installations. With the Legislative Decree (D.Lgs) "Sblocca Italia",[5] improvements have only touched the offshore oil drilling for oil and gas extraction. This was well explained in a letter of complaint sent on February 2014 by a group of Italian operators which had had their projects literally blocked.[6] The letter was sent to President of the Council, Renzi himself but never received a reply.

2.2 Current Incentive Scheme Implementing EU Legislation – Directive 2009/28/EC

The Renewable Energy Directive 2009/28/EC,[7] hereafter, the "RES Directive" established a common framework for the promotion of energy by setting mandatory national targets in order to achieve at least a 20% renewable energy share in the final energy output by 2020. The RES

[5] In 2014 three Italian laws ("decreti") were signed by the ministers regulating the system of incentives of renewable energies: 1) decree MisE-MATT concerning voluntary incentives (so-called "spalma-incentivi volontario", Art. 1, paragraphs 3-6 of the DL145/2013) for the power sector from sources other than photovoltaic; 2) decree MisE concerning rules on mandatory incentives for photovoltaic installations with power higher than 200 KiloWatt (KW) for a duration of 20 years (so-called "spalma incentivi obbligatorio" pursuant Art. 26, paragraph 3 of the DL 91/2014 for large photovoltaic installations); and 3) decree MisE on the methods of allocations for the incentives on the photovoltaic sector by the GSE, which reimburses to renewable energy producers, each year, with 90% calculated on the basis of the effective production of the previous year.This system should be in force until December 31 of the current year except if costs exceed of 5, 8 billion € on the costs of citizens' electricity bills. With these new laws, the Italian renewable energy power sector market appears deadlocked and will remain as such unless a new dress is adopted the day after the 31 December 2016 (which is the date of expiration of the decree). Therefore, in the Italian case, the future will depend of which kind of laws regulating incentives for renewable energy installations will be decided andwhether an improvement of the system of division of competences between states and regions with the need to re-centralize the competences to the State is adopted, and whether the costs of bureaucracy render the new laws inoperable. The need to overcome this deadlocked situation in the field of legislative competence seems to be supported by the Renzi Cabinet.

[6] Legambiente *"Trivelle SI, Eolico offshore NO?" Da Taranto a Termoli, da Gela a Manfredonia tutte le barriere all'eolico in mare e il via libera alle trivelle*" , 30.07.2014. This report contain a reproduction of the letter on page 3.

[7] Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable energy sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC (RES Directive), Official Journal (OJ)5 June 2009, L 140/16.

Directive required each Member State, to set out the sectorial targets by their National Renewable Energy Action Plans (NREAPs) by June 2010.
Also, each of these individual plans defined the "technology mix scenario", the trajectory to be followed and reform measures to overcome barriers and ensure the developing of renewable energy. Offshore wind energy has a very important role in this context of "mix scenarios".
Italy already achieved its 2011/2012 targets, laid down in the RES Directive, as mentioned before in this article. But these good results have depended largely on the high level of incentives that have benefitted renewable energy resources, as it will be shown in the next sections. However, the trend of last years is toward the reduction of incentives which could have serious impact on Italy's ability to reach its 2020 objectives. The functioning of the mechanism of incentives is explained and given by the "Gestore dei Servizi Energetici" the "GSE" which is a very important actor in Italy. The GSE (in English the "Energy Service Manager") abbreviated "ESM", is practically a state-owned company which promotes and supports renewable energy sources (RES).[8]
The aim to the ESM is to foster sustainable development by providing support for renewable electricity (RES-E)[9] generation and by taking actions to build awareness of environmentally efficient energy uses.[10]
With regards to the schemes for the promotion of offshore wind energy in Italy, the Italian law implemented the RES Directive is the D.Lgs 28/2011[11] which by transposing the RES Directive has introduced significant changes to the incentive schemes of energy from renewable sources.
The fixation of tariffs and other implementing measure has to be decided in Italy, by a Ministerial Decree and after 2013 the fare to be received during 25 years is determined by a tendering scheme with a based price for offshore projects of 165 €/MWh.[12]
In order to be admitted to a tender process, bidders have to offer a reduction over the base price between 2-30%. Until the present time, it is reminded that no commercial offshore wind farm exists in Italy yet.
The incentive schemes currently provided by the Italian legislator for offshore wind energy power are based on: 1) *feed – in tariff* and 2) *tendering schemes.* According to the *feed - in tariff*, plants with an installed capacity not exceeding 200 KW started after 31/12/2000, as a result of new construction, renovation or improvement, have access to a comprehensive fee that allows them to receive an incentive of 0.30 per kWh for a period of 15 years.
With regards to the tendering schemes, Italy planned 680 MW of offshore wind energy for 2020 (129 MW by 2014). However, due to the fact that no offshore capacity has already been deployed, no new capacity has been allocated by tenders yet.[13]
Without any doubt it would be usefull for Italy to find other sources of inspirations from other countries, such as the Danish experience, for example, that provides authorizations procedures quite simplified which award the power of the installations, and interesting incentives schemes. This country implemented specific support schemes or adapted to the remuneration level based on *feed-*

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[8] RES or FER are Renewable Energy Sources (Fonti da Energia Rinnovabile) which means renewable non-fossil energy sources (wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, seawage treatment plant gas and biogases).
[9]RES–E means "RES–Electricity" and it is the electricity produced from renewable sources which means electricity produced by plants using only renewable energy sources, as well as the proportion of electricity produced from renewable energy sources in hybrid plants also using conventional energy sources and including renewable electricity used for filling storage systems, and excluding electricity produced as a result of storage system.
[10] See more about the "Gestore dei Servizi Energetici" (GSE), translated in this article by "the Energy Service Manager" (ESM) at the official web-site: www.gse.it
[11] Decreto Legislativo 03.03.2011, N. 28 Supplemento Ordinario n. 81/L alla Gazzetta Ufficiale N.81/L "*Attuazione della Direttiva 2009/28/CE sulla promozione dell'uso dell'energia da fonti rinnovabili, recante modifica e successive abrogazione delle direttive 2001/77/CE e 2003/30/CE*".
[12] Gonzalez J. S, *et al* "*A Review of Regulatory Framework for Wind Energy in the European Union Countries: Current State and expected Development*", Renewable and Sustainable Energy Review 56 (2016) 5, page 593.
[13]Gonzalez J. S, *et al* "*A Review of Regulatory Framework for Wind Energy in the European Union Countries: Current State and expected Development*", Renewable and Sustainable Energy Review 56 (2016) 5, page 591.

in premium,[14] financing and tendering schemes.[15] These danish measures include insteresting support for the financing of the preliminary investigations by local wind turbines and adoption of local purchaise by citizens and *premiums* based on the power of energy installations. The *feed-in premium* is based on 1) call for tender, and 2) and open door procedure.[16] For the coastal projects, a 20% share of ownership of the projects has to be offered to local residents or companies. Guarantee for loans taken out by local owners are provided by the Danish transmission system operator called "Energinet.dk". This could be also a solution in case of local opposition that delay or block intallations. The Development in the Danish Law has been introduced as a new measure to promote onshore and offshore areas. Specifically, the Danish Renewable Energy Act[17] has introduced specific measures: 1) local ownership approach which include a fund support and 2) a co-ownership scheme which imposes an obligation on wind energy developers to offer a minium of 20% ownership of project ot local citizens.[18]

[14] *Feed in premium* FiP are defined as market dependent mechanism.

[15] Olsen B. E., "*Regulatory Financial Obligations for Promoting Local Acceptance of Renewable Energy Projects*", Chapter 10, in "*Renewable Energy Law in the EU - Legal Perspectives on Bottom-up Approach*", Peeters M., Shoemerus, T., Edward Elgar, 2014.

[16] In Denmark, in the call for tenders, the subsidy to be received in form of a sliding feed in premium is selected by a tender procedure. With regards to the open-door procedure, offshore wind farms under the feed in tariff premium of 30 €/MW h for 22 000 equivalent full hours plus 3 €/MW h for covering the balancing costs. Gonzalez J. S, *et al* "*A Review of Regulatory Framework for Wind Energy in the European Union Countries: Current State and expected Development*", Renewable and Sustainable Energy Review 56 (2016) 5, page 593.

[17] First renewable Energy Acts, Act No 1392 of 27.12.2008 as replaced by Consolidated Act on Renewable Energies No. 1074 of 8.11.2011

[18] Olsen B. E., "*Regulatory Financial Obligations for Promoting Local Acceptance of Renewable Energy Projects*", Chapter 10, in in "*Renewable Energy Law in the EU - Legal Perspectives on Bottom-up Approach*", Peeters M., Shoemerus, T., Edward Elgar, 2014, page 195-196.

2.3 Permitting and Licensing: Evolution of the Regulatory Framework on the "Authorization Process"

In Italy, the absence of a national energy plan for a long time even though a plan was finally adopted but very late as mentioned previously, is also due to the remarkable diversity and heterogeneity in geographical, economic and environmental terms. [19] These problems have contributed to a disjointed and fragmented regulatory framework with respect to renewable energy sources in general, and in the offshore wind energy power sector, in particular.[20] Specifically, with regards to the offshore wind energy sector, the lack of transparency in the permitting and licensing procedure, the lack of mechanisms of support and the interference of many subjects in the involvement on permitting and licensing, have created barriers in the development of the sector, especially for investors.[21] In the past, like in the present, it is not clear "who – licences what".

Renewable energy projects are "share competences" between the Regional competence and the National competence.[22] Nevertheless, there are some differences and exceptions in case of who shall deliver the "Authorization Procedure" to open a power plant. In case of onshore and other renewable energy, the competency is in the hands of the Regions but not in the case of offshore wind power plants where the competency has been completely centralised meaning that in case of offshore, the competent actor is the State and not the Regions.

In case of Regional competency, the Decree 387/2003[23] contains important principles in order to rationalize and simplify the authorization procedures of renewable energy plants. Firstly, Article 12 of Decree 386/2003, states that works to build plants producing electricity fuelled by renewable energy sources as well as associated structures are considered as "public utilities", thus they cannot be "deferred" and must be considered as "urgent".

Secondly, a special administrative permit called "Single Authorization" has been introduced. The permit has to be considered by the Regions (or by delegated provinces") through a single process which implies the involvement of all concerned administrative authorities.[24]

The procedural scheme chosen by the legislator is the "Conferenza dei Servizi" (in English "Service Conference" abbreviated "S.C"), which allows simultaneous representation and analysis of all various public interests and actors involved in the authorization process. In addition, Article 12 of the Decree 387/2003 also established the time frame for procedures. Article 12 also deals with compensatory issues, holding that the single authorization cannot be subordinated to or provide for such a measure in favour of Regions or Provinces.

Of particular interest of this Article 12 is number 10 that defers the punctual definition of the authorization procedure for renewable plants to further "Guidelines". On the ground of these Guidelines, Regions could intervene in order to identify areas and sites that were considered not suitable for installation of specific plants.

These Guidelines are not applicable to the offshore wind energy power sector.

It is very important to note that during the last years, some exceptions to Regional competence in

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[19] Fanetti, S., Pozzo, B.,"*Subnational Resistance against Renewable Energy: The Case of Italy*", in "Renewable Energy Law in the EU -Legal Perspectives on Bottom-up Approach", Peeters M., Shoemerus, T., Edward Elgar, 2014, page 165-183

[20] Fraterrigo, C., "*Profili critici dello strumento dei piani energetici regionali: in particolare, l'esperienza della Regione Sicilia.*"Norma – Quotidiano d'informazione giuridica", 13 Dicembre 2011.

[21] Giugno, S., "*Eolico Offshore, perché l'Italia non ha nemmento un impianto?*", La Stampa, 24.06.2015, at http://www.lastampa.it 2015/06/24/ scienza/ambiente/focus/eolico-offshore.

[22] Under the current provisions of the third paragraph of the Article 117 of the Italian Constitution, "*national production, transport and distribution of energy" is a matter attributed to concurrent legislative competence: the State sets out the fundamental principles, while the Regions are responsible for the preparation of detailed regulations.*"

[23] Decreto Legislativo n. 387 del 29.12.2003. G.U. n. 25 of the 31.01.2004, Suppl. Ordinario n. 17.

[24] Fanetti, S., Pozzo, B.,"*Subnational Resistance against Renewable Energy: The Case of Italy*", in "Renewable Energy *Law in the EU - Legal Perspectives on Bottom-up Approach*", Peeters M., Shoemerus, T., Edward Elgar, 2014, page 165-183.

the authorization process were provided in the case of offshore wind energy power sector.
Firstly, Article 2, paragraphs 158, letter C of the Law 244 of 2007 [25] established that the authorization for the offshore installations be issued by the Ministry of Transport, the Ministry of Economic Development and the Ministry of Environment and Protection of Land and Sea. Secondly, an additional change in the law which was introduced by Article 13 of the Decree 46/2014, has assigned to the Ministry of Economic Development, the competence of authorization of renewable plants with total installed heat capacity equal to or greater to than 300 MW. These amendments may be viewed as part of the re-centralization process of renewable energy governance that the Italian government is undergoing.[26]
Both in the case of Regional competence and National competence in accordance with the Legislative Decree 152/2006, an "Environmental Impact Assessment" (EIA) applies. This Legislative Decree approves the Code on the Environment which sets out the legislative framework applicable to all matters concerning environmental protection. The Code is composed of six parts. One of these parts concerns and defines and regulates the procedure of EIA (in Italian "Valutazione di Impatto Ambientale" abbreviated "VIA").
This means that wind power plants are linked to EIA procedures and "other procedures". For wind power plants exceeding 60 kW of power, wind power plants regardless their sides are subject to Screening Procedure. If these plants exceeds 60 kW and are partially within the system of Protected Natural Areas, they are subject to an EIA. The head of the EIA must ensure that the procedure for granting the Single Authorization Procedure is coordinated under the procedure of impact assessment.
For offshore wind power plants which are less than 60 kW, after the new Decree DL 91/2014 converted in Law 116/2014 amending the aforementioned D.Lgs 152/2006, it is also mandatory for small offshore power plants to be subjected to EIA.[27] These are also "other procedures" as mentioned in the previsous section, that are requested for the installation of an offshore energy power plants. These procedures other than the "Single Authorization" are, for example: Incidence Assessment (Valutazione di Incidenza), Declaration of Starting Activity (Dichiarazione di Inizio di Attività), Certificate of no Impediment" (Nulla Osta for Lanscape and Archeological and Flight Constrains) and an Integrate Environmental Authorization (Autorizzatione Integrata Ambientale).[28]
To recapitulate, in Italy, authorizations in the case of the offshore wind energy power sector (differently to on shore) are issued by 1) the public maritime domain (navigation code) granted in concession by the Ministry of Transport through Port Authorities), 2) the "Autorizzazione Unica" (Single Authorization) is granted by the Ministry of Transport (after consultation with the Ministry of Economic Development and the Ministry of the Environment and Protection of the Land and Sea and 3) must go through an EIA which is granted by the Ministry of Environment, after hearing the Ministry of Cultural Heritage.[29]
In order to understand the evolution of the regulatory framework on the authorization process for wind energy power plants installations, it is important to examine, the regulatory trend between 2000 until now days. A clear overview will both permit learning from the past mistakes and

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[25] Leggen. 244/07, dicembre 2007.
[26] Fanetti, S., Pozzo, B.,"*Subnational Resistance against Renewable Energy: The Case of Italy*", in "*Renewable Energy Law in the EU - Legal Perspectives on Bottom-up Approach*", Peeters M., Shoemerus, T., Edward Elgar, 2014, page 167, footnote n. 9.
[27] Sezioni Unite Penali (Penal Sections) of the Corte di Cassazione in the recent judgement of 13 April 2016 n. 15453 that made the state of the art in the regulatory evolution in the field of EIA after the procedure of infraction (messa in mora) against Italy for not transposing correctly the Directive 2009/31/EC on Environmental Impact Assessment. For that purpose, the Italian legislator has enacted the Law 91/2014 converted by the Law 116/2014 that modifies the D.Lgs 152/2006 which provides that irrespectively from the thresholds established in the Allegato IV of the Codice dell'Ambiente (Environmental Code) all the installations must be submitted to an EIA.
[28] Calabrese, G, "*L'Industria dell'Energia Eolica in Italia – Elementi Strutturali e Dinamiche Competitive*", 2012, Cacucci Editore. Page 158, footnote 65.
[29] Marchisio, A., "*Offshore Wind Power in Italy*" Seanergy 2020 Project APER (Italian Renewable Energy Association)

improve the future legal conditions on permitting and licensing.
Between 2000 and 2004, the objective of the rules was just to "start" the market. In order to do so, the Italian legislator has introduced a system of "Green Certificates" ("GC"), in Italian "Certificati Verdi" abbreviated with "CV" with the DLgs. No. 79/1999. The GC are green certificates which are a tradable commodity providing that certain electricity is generated using renewable energy sources. The GC ensured the stability and transparency and a strong administrative simplification with the procedure of "Single Authorization" through the D.Lgs no. 387/03 as previously mentioned [30] which involve all the public institutions in a single process authorization.
Between 2005 and 2008 a set of measures were established which went in the direction of development: 1) the incentive period was extended by 8 years (initially provided by DLgs 79/1999) to almost a double, 15 years (with the Law 244/07), and 2) the introduction of compulsory withdrawal of the GC expired by the ESM (L. 244/07 and implementing the Ministerial Decree 12/18/08).
From mid-2009 to the present time, there is high uncertainty of the system of rules: the attitude of the legislature has changed and the priority no longer seems to be the development the market as in the period between 2000 and 2004 but rather to achieve expenditure restraint.
In 2013, the D.Lgs 28/11 has provided the end of the "GC system" and a period of transition to an auction system better defined as "tender system" for large plants and administered price for others. Now, the "GC system" has been substituted by the "tender scheme" in 2013.
Grid connections have been set up and defined as "shallow cost approach".[31]
The shallow coast approach means that the plant developer bears the costs of equipment necessary to connect the generator to the nearest point on the already existing grid network. On the other hand, the grid owner will bear the coast of any reinforcement that would be necessary to integrate the new generator. There are some barriers in that sense as grid connection requires a long time and the grid is underdeveloped (as it will be explained in the next section).
It is worth noticing here that the reason why the grid connection issue is taken into consideration in this analysis is because the connection of offshore wind farms to the grid is actually very important. One of the most crucial preconditions for offshore wind power deployment is the existence of an adequate regulatory and economic framework of the connection of offshore wind plants to the on shore transmission grid. In the best case, planning and construction of one or several offshore wind plants go hand in hand with planning of the relevant cable connecting the offshore wind plant to shore.[32] In the worst case, large offshore wind plants are completed but are unable to commence operations whatsoever because of delayed grid connections. This causes large economic losses and represents barriers for investors.
On 23 November 2015 the Italian Regulatory Authority for Elecriticy Gas and Water (AEEGSI) adopted a resolution[33] that provides general conditions for the connection to the renewable energy plants ot the national grid. The AEEGSI Resolution rules for the first time the connection

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[30] See footnote n. 15.
[31] Grid issues are related to issues regarding grid connection which is to say to procedure and coast allocations and operation (priority use of the grid and balancing). The general procedure for grid connection in most European countries is such that after performing the basic technical projects of the wind farm, the plant developer sends the application to the operator. There are different approaches in the EU Member States for sharing costs of grid connection between producer and grid operators: 1) shallow cost approach (as described above in the text and which apply to the Italian case), 2) super shallow approach which means that the plant developer only have to bear the costs of the inner electrical infrastructure including plant substation and 3) Expansion of the grid to the connection point and reinforcement which is borne by the grid operator, 4) Deep coast approach which means that the plant developers have to bear all connection costs, as well as any further reinforcement expenses that can arise as a consequence of integrating the generator in the electrical system, 5) Mixed shallow approach which is a model defined as "hybrid" of the deep coast and super-shallow approach. See more in Gonzalez J. S, *et al* "*A Review of Regulatory Framework for Wind Energy in the European Union Countries: Current State and expected Development*", Renewable and Sustainable Energy Review 56 (2016).
[32] Pira, R.,Report"*EU and Regional Practices for Offshore Wind: Creating Synergies*", Foundation of Offshore Wind Energy, November 2014, page 21.
[33] Resolution 558/2015 amending and updating AEEG Resolution 99/08.

procedures related to wind off-shore plants built on Italian national waters. The resolutions states that "Terna" (translated in English as "the National Grid Operator") subject to the prior consultation and approval by the AEEGSI, will specify withing the Grid Code (Codice di Rete) the possible solutions for the connection of the offshore wind plants.[34]

Moreover, in 2013, as mentioned in the introduction of this article, a new National Energy Strategy (Strategia Energetica Nationale, abbreviated with "SEN" in Italian) has been approved which finally after twenty years presents the first organic strategic document in the energy sector taken as a whole. SEN defines four main objectives of energy policy, identifying seven priorities for action including the development of energy renewable energy sources and the modernization of the renewable energy sector. SEN provides significant guidance to improve coordination between State, Regions and Local Authorities and recommends undertaking reform of Article 117 of the Constitution in order to harmonize national and regional legislation and propose a process of re-centralization of legislative functions in the hands of the State and the amendments of the offshore wind sector to be seen, as already explain by two authors,[35] as part of the re-centralization process which could be seen as positive for the future of the offshore wind energy power sector. This is actually what is pending to be seen in the next October of the current year, when there will be a referendum in Italy undertaking the general reform of Article 117 in several areas including energy issues.

Also the issue of the extra costs for the Italian market should not be overlooked when conducting legal analysis of the sector of offshore wind power and for future re-design of the regulatory framework. The development of investment in Italy has some extra costs that lead to a high failure in rendering the projects operative.

In particular, the regulatory delays are due to bureaucratic issues and to instability of incentives schemes and these two impacts not only on time but, also on costs. In addition, the costs of connecting the grid are very high such as for the construction of electrical substations and sometimes there are royalties to the municipalities involved in the initiative phase and it should not be forgotten that wind farms in Italy, are also subject to property taxation (around 5.000 €/MW).[36]

Moreover, the grid is underdeveloped in Italy because in order to ensure the safety of the electrical system, an entity which is "Terna" can impart some limitations of production in a planned manner or in real time referred as "dispatching orders". With that respect, some Italian producers may present to the ESM a request to obtain the remuneration for lost generation. [37]

3. Interactions between EU Legislation and Italian Offshore Wind Energy Practices

The objectives enshrined in the Treat of Functioning of the European Union (TFEU) need always to be taken into consideration when it comes to the authorization of an offshore wind energy power installation including grid connections. Here lies, on one hand, the strong linkage between procedures and authorization, and on the other hand, the protection of the environment. The two often need to be literally "weighted" against the EU secondary sources of law protecting the environment, in particular in interaction with several crucial directives that will be considered in this section. The objectives enshrined in the TFEU framework that need to be taken into

[34] The resolution also delegates other grid operators to issue their own solutions and contractual conditions in order to carry out the connection of offshore wind plants.

[35] Fanetti, S., Pozzo, B., "*Subnational Resistance against Renewable Energy: The Case of Italy*", in "*Renewable Energy Law in the EU - Legal Perspectives on Bottom-up Approach*", Peeters M., Shoemerus, T., Edward Elgar, 2014.

[36] See the APER Report, *Associazione Produttori Energia da Fonti Rinnovabili*, 2012.

[37] The regions in Italy most affected by the phenomenon are in the south of Italy, in particular in Puglia and Campania where there is a high concentration of plants. In case the grid would have been sufficiently developed, production from wind plants in 2010 would have amounted to 9.606 GWh, plus 5% (480 GWh) compared to 9.126 GWh real. See APER Report, Associazione Produttori Energia da Fonti Rinnovabili, 2012,

consideration when authorizing the construction of offshore wind farms and grid interconnection are: 1) Protecting the environment (for instance where offshore wind farm are constructed in nature-protected areas and combating climate change); 2) Achieving a competitive and secure internal energy market with a free movement of electricity; 3) Promoting the interconnection of energy networks and the development of trans-European networks in the area of energy infrastructure.
Member States of the EU in question need to consider whether the offshore wind power farm projects jeopardize other objectives under EU law, for example the protection of biodiversity and in that respect, Member States can adopt stringent requirements that in a given case prevent the authorization of renewable energy project.
A concrete example of this situation is the Court of Justice (CJEU) Italian's Case C-2/10, Azienda Agro-Zootecnica Franchini Sarl [38] where it was important to understand what objective the construction of an offshore wind farm or grid seeks to achieve and where objective and authorization requirements are connected too and balanced against the requirements in the RES Directive and other objectives contained in other directives protecting the biodiversity.
In particular the Habitat & Birds Directives[39] are fundamental with the objective to protect the species in the EU and preserve natural habitat for certain specie at risk on Natura 2000.[40]
In particular, Article 6, paragraph 3 of the Habitat Directive provides that any plan or project likely to have a significant effect on the management of the site, either individually or in combination with other plans or project, is subject to an assessment of these implications for the site in view of the site's conservation objective. According to the CJEU, these directives do not prohibit all human activities within a Natural 2000 site but simply make authorization of such activity, conditional upon a prior environmental impact assessment.[41]
Therefore, the authorization process for offshore wind energy farm is legally entrenched between the Habitat & Birds Directives and the directives related to environmental and strategic impact assessment binds Member States' legislations to conduct impact assessment because it is linked to the issuance of authorizations to install power plants.
The Environmental Impact Assessment Directive better known as "EIA Directive" is on environmental impact assessment in force since 1985 applying to a wide range of defined public and private projects, has been modified in 1997 (97/11/EC), 2003 (2003/35/EC) and 2009 (2009(31/EEC).[42] In Italy, the implementation of this directive, in particular in the case of an offshore wind energy power plant, is an example of how complicated and numerous the considerations are concerning the authorization process. They have to be taken into consideration often become battlefield between state and regions, and the amount of documentation that is needed for the issuance of authorizations to set a an offshore wind farm.[43] The procedures are numerous, as already analysed and described in the previous section.[44]
The Strategic Impact Assessment Directive, better known as "SIA Directive", sets the rules for strategic environmental assessment on the assessment of the effect of certain plans and

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[38] Court of Justice, Case C-2/10, Azienda Agro-Zootecnica Franchini Sarl, Eolica di Altamura Srl *v* Region Puglia, 21 July 2011.
[39] Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitat and the Protection of Natural Habitats and of Wild Flora and Fauna, OJ L 206 of 22.07.1992 and Council Directive 79/409 EEC of the 2 April 1979 on the Conservation of Wild Birds, OJ L 103 of 25.04.1979.
[40] Natura 2000 is network of core breeding and resting sites for rare and threatened species and some rare natural habitat types which are protected in their own rights and cover 28 EU Countries including land and sea. The aim of the network is to ensure the long-term survival of Europe's most valuable and theratened species and habitats, listed both under the Habitat & Birds Directives. See "Natura 2000 – Environemnt" at: ec.europa.eu.
[41] See Court of Justice, Case C-2/10, Azienda Agro-Zootecnica Franchini Sarl, Eolica di Altamura Srl *v* Region Puglia, 21 July 2011.
[42] Directive 85/337 on the assessment of the effects of certain public and private projects on the environment, OJ 1985 L 175/40, as amended by Directive 97/11, OJ 1997 L 73/5 and Directive 2003/35, OJ 2003 L 156/17.
[43] Calabrese, G, "*L'Industria dell'Energia Eolica in Italia – Elementi Strutturali e Dinamiche Competitive*", 2012, Cacucci Editore. Page 158, footnote 65.
[44] See previous section.

programmes. [45] Also, provisions related to EIA and SIA Directives are different compared to "Incident Assessment" (Valutazione di Incidenza) as mentioned in the previous section [46] which explains the amount of bureaucratic passages and documentation.

4. Legislative Fragmentation and Conflicts between Regions and State

Due to the absence of a unitary national legal framework in the RES in Italy, Regions often have worked disjointed from the other Regions and often in a random way by sometimes adopting more stringent and severe legal provisions or sometimes the opposite. Very often, bureaucratic burdens were added instead of simplifying the authorization procedure. This had repercussions also in the transposition of the RES Directive and it is visible in the manner in which D.Lgs 28/2011 has been poorly applied and can be considered as an example of low level of quality at normative level.
In particular, Article 4, paragraph 6 provides for simplification in the authorization process with fast timing to comply in case of RES installation.[47] This has not been achieved. Another example is Article 5, paragraph 3 of the same Decree where interventions of substantial changes have been identified according to the typology of installations and for those installations to be subordinated to a single authorization procedure.[48] Nor has this been achieved. It is certain that if the normative framework stands like it is, there will certainly not be any improvement in terms of future investments.

4.1 Example of Fragmentation: Case C-2/10 Azienda Agro-Zootecnica Franchini

The Case C-2/ Azienda Agro-Zootecnica Franchini mentioned in the previous section, can be considered also as a very good case explaining the conflicts between the State and Region where the main battleground is precisely represented by the authorization process for renewable energy projects.[49] This case has reached the CJEU and concerns the prohibition of wind turbines in the light of nature protection and it is based on a preliminary question from the Italian Court regarding the total prohibition of wind turbines in nature conservation areas as the Puglia Region, a Region that wanted to take action against the installation of wind energy. The case represents an example of a regional government willing to impose a barrier to further renewable energy establishment.
The CJEU explicitly consideres the proportionality principle and states that Article 13 of the RES Directive introduces this principle with regards to administrative procedures for the authorization of plants producing renewable energy. In this case, the national Italian Court had to answer the difficult question whether this ban for the sake of nature protection is indeed proportionate and necessary. This case explains therefore where the objective of environmental protection gets weigthed against the objective of renewable energy production when an offshore wind energy project will apply for authorization in a protected nature area.
The entrenchment between substantive aspects that can be tested in a court procedure, and the need for administrative authorities to provide adequate justification in case of substantive burden is

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Directive 2001/42 on the assessment of the effects of certain plans and programmes on the environment, OJ 2001 L 197/30. An assessment under the EIA Directive is without prejudice to the requirements of the SEA Directive, Case C-2/10 Valciukiene and others, Judgement of 22 September 2011. Para. 59. See this point in Jan H. Jans and Vedder Hans H.B., "*European Environmental Law After Lisbon*", 2012, Europa Groningen Publishing, p.366, footnote n. 32.

See previous section.

Article 4, paragraph 6 of the D.LG.s 28/2011 , states: " *Sono previste specifiche procedure autorizzative, con procedura accellerata ed adempimenti semplificati, per I casi di realizzazione di impianti di produzione da fonti rinnovabili in sostituzione di altri impianti energetici, anche alimentiati da fonti rinnovabili*".

ANEV Report, Italian Wind Energy Association, ANEV (Associazione Nazionale Energia del Vento), 31.03. 2016.

Bonetti, S., Pozzo, B., "*Subnational Resistance against Renewable Energy: The Case of Italy*", in "Renewable Energy in the EU -Legal Perspectives on Bottom-up Approach", Peeters M., Shoemerus, T., Edward Elgar, 2014, page 167.