

Strasbourg, 11 March 2015  
[files17e\_2015.docx]

**T-PVS/Files (2015) 17**

CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE  
AND NATURAL HABITATS

**Standing Committee**

35<sup>th</sup> meeting  
Strasbourg, 1-4 December 2015

---

**Complaint on stand-by**

**Wind energy: Possible threats to an endangered  
natural habitat in Izmir (Turkey)**

**REPORT BY THE COMPLAINANT**

*Document prepared by  
Prof. Dr. Aysen Müezzinoğlu*

**COMPLAINT NO. 2014/6 ON WIND ENERGY: POSSIBLE THREATS TO AN ENDANGERED  
NATURAL HABITAT IN İZMİR (TURKEY)**

**385 WIND TURBINES ON ÇEŞME PENINSULA**

Çeşme peninsula, jutting westward into the Aegean Sea from the city of İzmir, is comprised of 5 townships, namely Çeşme, Karaburun, Urla, Seferihisar and Güzelbahçe. Tourism, agriculture, forestry and fishery are the main activities of the locals. Its unique microclimate and habitat, houses many endemic and rare species of wild animal and plant life.

9,000 years of human settlement can be traced back to Neolithic period. As a result, the natural and cultural heritage of the peninsula is protected by various national and international laws, regulations and conventions. Areas of nature, urban and archaeological sites, traditional and country settlement areas, ancient settlement areas, nature parks and monuments, areas of wild life preservation, important nature areas (areas that require special attention for the survival and sustainability of all living forms) and wetlands are all defined and are under protection.

The prevailing winds that sustain life have recently become renewable objects of unsuitable energy desire and national growth strategies. Up to now, 385 wind turbines are installed and are already producing 345.5MW of electricity while 338MW capacity is under construction, adding to a total of 683.5MW for the time being. If needed, I can send all the coordinates of the installed turbines.

In order to avoid and bend the EIA requirements, companies have applied with minimum turbine numbers to stay below the recommended capacity for exemption with the intention of future capacity increase. Already some companies are applying for additional capacity increase. Just last week, the people of the township of Karaburun, a national nature reserve and candidate for a special biosphere status, have won a case against the installation of additional 47 turbines.

The EIA law was first introduced in 1983 but it took 10 years before it became effective. As of 1993, 99% of applications were approved and six major amendments were declared, all favouring new exemption conditions for investing companies. These EIA reports were prepared by private companies and their efficiency and reliability were questioned by academia, lawyers and regulators. Ever since its introduction, EIA regulations have been a major dispute between the state and the activists and many cases have been taken courts. There are many court rulings obtained which should lead to cessation of construction and road preparations but the local state authorities abstain from realizing their constitutional and administrative duties.

In the case of Çeşme town, the ABK energy company has finished the construction of 6 turbine vaults and is continuing with propeller installations regardless of on-going cases against immediate confiscation of private lands and other court rulings which have obtained no further continuation of constructions. Other 4 companies which are closely situated to residential areas, protected habitat and wildlife areas of Çeşme have obtained EIA exemptions and local peoples' right to be informed and right to reach information have been breached. We are now developing a case for a cumulative EIA evaluation of 5 wind energy stations and will take the issue to court.

The following figures are taken from a recent publication prepared by three universities from İzmir for the İzmir Development Agency as a strategic guideline for sustainable development of the peninsula. Figures show the installed turbines, their proximity to residential and nature preservation areas and possible conflict areas *vis à vis* the most common complaints, i.e. sound and visual disturbances.

Figure 1: Wind turbines, human settlements and Nature Preservation Areas  
Legend: Green dots are wind turbines, Striped areas are natural and archeologic sites and Nature Preservation areas, Zones in yellow are residential areas.

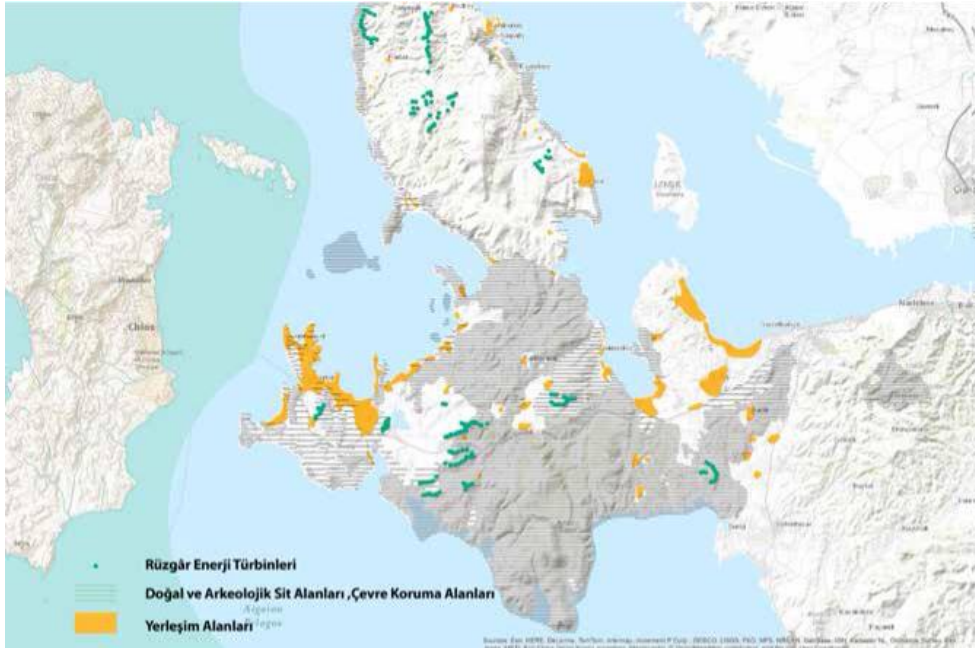


Figure 2 : Proximity Circles

Legend: Green bars show the proximity of turbines to residential areas in respect to noise disturbance in dB values between 100m-2000m to residential areas. Brown bars show the visual disturbance felt between 100m-500m of residential areas

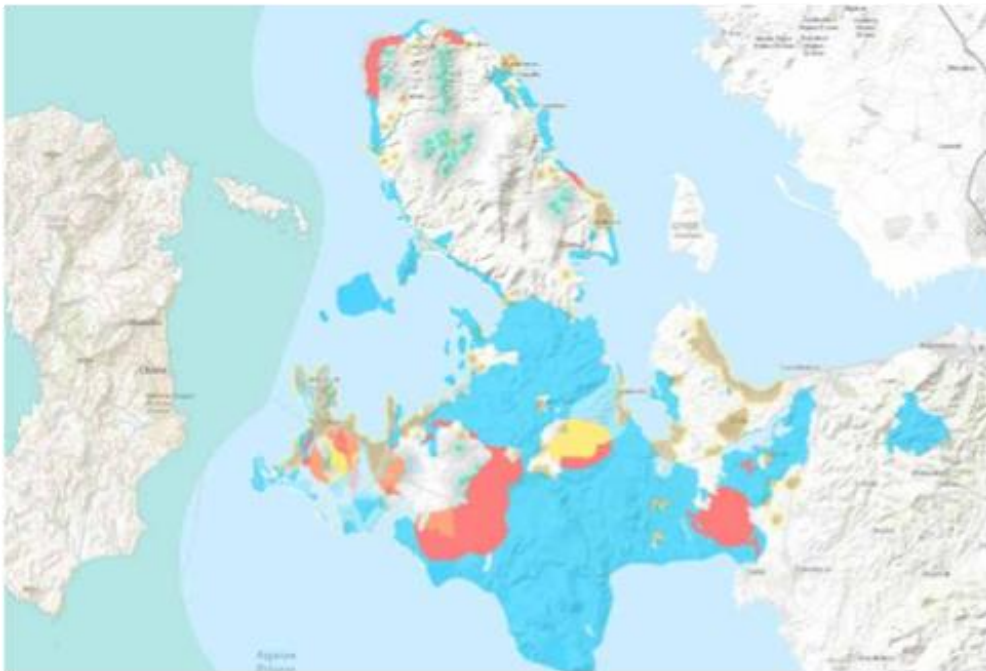
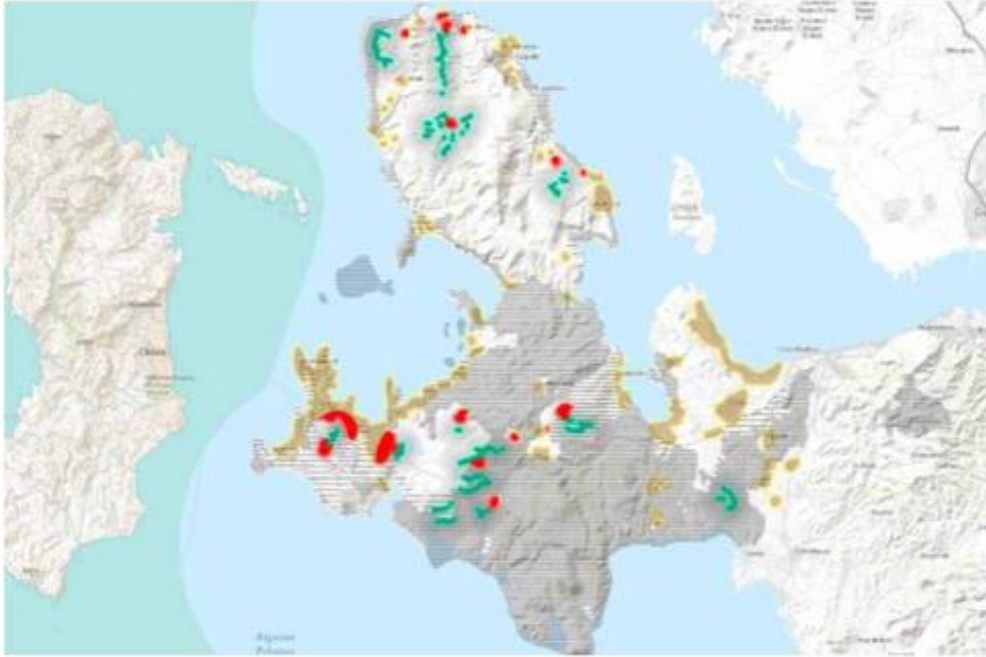
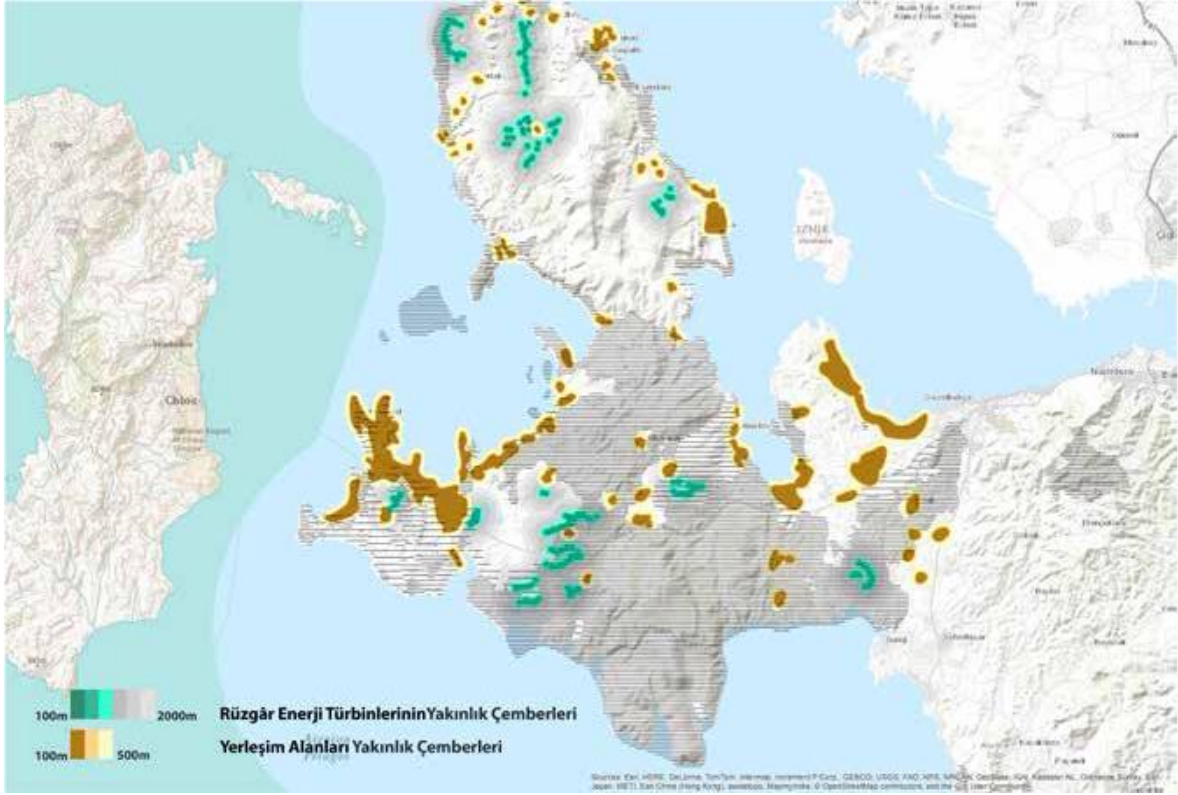


Figure 3 and 4 : Possible Areas of Conflict above at residential areas and turbines, below at nature preservation areas ( red is highest and yellow is lowest) areas of conflict.



## ENVIRONMENTAL AND SOCIAL IMPACT OF WIND TURBINES ON ÇEŞME PENINSULA, İZMİR, TURKEY

*Prof. Dr. Aysen Müezzinoğlu*

Human activities with low greenhouse gas emissions are absolutely crucial for sustainability of life on Earth as the global energy-versus-climate dilemma is increasingly threatening our civilization. That is why we have to be very careful in selecting the methods of providing power into the grids by using resources with lowest carbon footprint emissions. However, we must also bear in mind that no energy conversion method is totally free from environmental challenges and even the most innocent-looking renewable energy resources might have unacceptable impacts at local levels. That is an issue of scales; environmental indicators at local levels may differ from what one sees from a global or national perspective. Thus, it should be granted that the selected energy generation technique is acceptable by the local people and should not harm the culture, ecosystem, and natural balances at the areas where projects are implemented. Global, national or regional evaluations are not enough, local acceptability must be looked for and guaranteed.

In modern energy business, investors foresee that each kW capacity of any low carbon footprint resource is converted into power and tapped into the grid. Wind power is a good example of low carbon footprint resources to be fed into the grid in many countries. Also the dependability of an energy grid is based on multiple types of resources are put into use. These are also true for the energy planners in Turkey that has one of the fastest growing energy demand-and-supply market in the world. We feel lucky to have rather strong and widespread wind energy in many geographical areas in the country.

Technically the degree of wind energy exploitation is not limitless even if the capacity is high in a small area like Çeşme Peninsula. It needs to be limited on account of two groups of constraints; 1) the technical quality of the power supply in the grid, and 2) the environmental and social welfare of the local people. Intermittency as well as highly technical current and frequency problems at near-by user facilities must be solved in local area as where a high percentage of the wind and solar power is fed into the grid. At the localities where this allowable percentage is exceeded frequent problems in electric power supply are seen and these may harm the commercial and household instruments of the end users. This technically limited percentage of renewables to be introduced into a grid, necessitates new conventional energy facilities to be developed nearby with other sets of environmental consequences.

The second problem group is related with constraints including health and welfare of local people, their economic and cultural environment, ecosystem balances and activities in preservation of wildlife. Annoyance is the most important issue connected with wind turbines. There is absolutely no country that does not oblige wind power companies carry out extensive environmental studies before permitting. Reports in the format of Environmental Impact Assessment (EIA) are required. Such studies generate and evaluate existing data for the benefit of local regulatory mechanisms in favour of both the local people and the wind companies. One of the mostly used mechanisms is the 'set-back distance' issue. In many countries wind turbine setbacks are applied to protect other turbines, workers, residents, traffic, agricultural economic activities, by law or local regulations. In several others, setback is a tool used by the companies or required by local administrators regardless of a legal requirement which may or may not exist. In some cases setbacks are voluntarily applied by the companies. Globally, the average minimum setback distance is 470 meters and it extends to an average of about 1,000 meters between the turbine and the nearest bedroom of local resident homes. The global trend in the last decade is ever increasing setback distances, today they are in the order of at least a mile (1,610 meters) to 2,000 meters in North America. Setback distances are mostly determined by the local authorities based on night-time environmental noise level standards of the World Health Organization. This standard includes the regular noise levels plus the infrasound levels based on their frequency within given periods. In many instances back calculation of acceptable environmental noise level is necessary to install a turbine by taking account other nearby turbines. This is done by using a noise distribution model ending in noise maps around potential sources. In Turkey we have a nicely prepared noise regulation which would handle the night-time noise restrictions in Çeşme area only if the administration would require it from the companies.

There are probable impacts on public health not only due to the noise problems originating from the turbines ending in sleep disorders, but also problems related with shadow flickers that were

correlated with increased epileptic seizures in sensitive groups of the populations elsewhere, too. Shadow flickering is another significant problem area in connection with public health issues. It requires quantitative information about the possibility and duration of flickers and the ways the turbines are installed with respect to the sun at dawn and dusk are other.

Local climate changes are also shown to occur in other countries due to triggered vertical displacements of local air masses. It is understood that increased temperatures especially at night-time are to be expected and the wind regime will be changed. These will have effects on the local biota and traditional local agricultural production.

People in Çeşme peninsula want to know all these potential impacts and the new wind energy investment projects should care for the local people's opinions. It is clear that the number of turbines is extremely high for such a small land area also in use competitively use by local residents and recreational population moving in and out from the near-by cities during holidays. That is why we want the investors to obey the minimum respect to people's rights of living in such a congested area and obey setback distances of 500-1000 meters to the nearest bedroom depending on the topography of the sites.

People also want to protect their quality of life and continue the activities such as agricultural practices, tourism and protection of the wildlife. That must be assured through an EIA covering the Peninsula and including all turbines; existing and potential ones. Impacts should include the issues mentioned above added by all of the facets of the natural life and beauty which is so precious. Bats, bees, goats, migrating and local avians, wetland and coastal area life forms, endemic plants and trees, natural balances, historical and cultural values, etc. are all under danger unless probable impacts are studied before such big investment projects. Questions arising due to conflicting land uses and fast appropriations with no regard to the environmental, public health and ongoing nature preservation programs are unacceptable in the congested land area of Çeşme which has unique values in recreation, agriculture, cultural and natural heritage.

Prof. Dr. Aysen Müezzinoğlu

## EXTRACTS FROM THE COMPLAINT'S FORM – JULY 2014

I am a farmer, with a medical degree and an amateur naturalist from Çeşme, İzmir, Turkey and I am very concerned about the exponentially increasing number of wind energy installations (WEIs) which are rapidly invading the Çeşme Peninsula, an endangered natural habitat, nurturing a biota of expansive biodiversity (Ref.1 Maps showing WEI developments in the area).

Growing energy need/deficit is a result of an unsustainable conduct of human life on planet. We seem to concentrate on the end results rather than the cause itself. New, renewable energy sources are only viable when they are environmentally, socially and economically acceptable under the scope of sustainability. As the effectiveness of large-scale industrial wind energy remains under great dispute, there is growing concern and evidence that the regulatory bodies should require meticulous scrutiny before licenses are granted.

Even though the complaint is specifically prepared for the ongoing wind turbine constructions and their natural and social impact on the Çeşme Peninsula, the same complaint can be multiplied in hundreds, if not in thousands, for the wild and ambitious energy and development projects of the state, threatening the whole of the Anatolian ecosystems with hydro- wind-thermo and nuclear industrial energy facility constructions.

In a recent article on energy, Turkey and wind turbines in Çeşme by Deutsche Welle, it is reported that the Turkish Energy market is the fastest growing in the world. 2013 saw an influx around 13 billion USD and forecasts aim at 120 billion USD - twice as much as in the past ten years. Nordex, one of the market leaders of the German wind turbine producers and exporters, have already sold 6 wind turbines for the Çeşme ABK project (Ref.2).

So it is not very difficult to understand why our private and public lands are confiscated with immediate antidemocratic compulsory purchases then privatized for 50 years to companies without environmental impact assessments. This unethical assault on Anatolian soil which mothers some 15 000 plant species out of which 3500 are endemic should not be left unnoticed and unpunished. While evaluating this complaint, I kindly ask a very crucial aspect of this conflict to be kept in perspective, i.e. the hypocrisy of contracting parties vis a vis the Bern and Aarhus Conventions.

The Republic of Turkey has been a member of the European Council since 9 August 1949 and a candidate for EU membership since decades now. As for the environmental issues, Turkey is a contracting party of the Convention on the Conservation of the European Wildlife and Natural Habitats, CETS No: 104 since 01/06/1984, member of the European Environment Agency (EEA) and many related networks. On the website of The Turkish Ministry of Environment and Urbanization's General Directorate of Protection of Natural Habitats, they define themselves as "not only the national responsible body on the planning of protected areas in the country but also as a selected, official EU unit which also follows the environmental status of Europe as well", namely the European Topic Center on Biological Diversity of the EEA. (Ref.3)

This conflicting execution of responsibilities amongst the different branches of the state have irreversible damage on our environment. The state is violating the following mandates of the Bern Convention by not taking action to:

- promote national policies for the conservation of wild flora and fauna, and their natural habitats;
- have regard to the conservation of wild flora and fauna in their planning and development policies, and in their measures against pollution;
- promote education and disseminate general information on the need to conserve species of wild flora and fauna and their habitats;
- encourage and co-ordinate research related to the purposes of this Convention.

As for the Aarhus Convention which Turkey is still abstaining to sign, a German company, from a contracting country, has no concern for their export of machinery to a project which has been violating both national and international laws, regulations and conventions by obstructing peoples' right to access to environmental information, public participation in environmental decision making and access to justice.



The habitat types which might result endangered by the windfarms project are the following:

- A 4.14 Mediterranean and Black Sea communities of mediolittoral rock very exposed to wave action
- B.1 Coastal dunes and sandy shores
- C.1 Surface standing waters
- C.2 Surface flowing waters
- D.5 Sedge and reed beds, normally without free standing water
- E 1.3 Mediterranean xeric grassland

App. 6 LIST OF SPECIES REQUIRING SPECIFIC HABITAT CONSERVATION I feel more confident in defining plant species rather than animal species. An expert opinion is need for the animal species.

Alismaceae, Amaryllidaceae, Amaranthaceae, Anacardiaceae, Asclepiadeceae, Boraginaceae, Campanulaceae, Caprifoliaceae, Caryophyllaceae(Arenaria,Cerastium,Dianthus,Moehringia,Spergula), Celastraceae, Centuaraceae, Chenopodiaceae, Cistaceae, Compositaceae, Cruciferae, Cupressaceae, Cypraceae, Elatinaceae, Ericaceae, Euphorbiaceae,Gentianaceae, Geraniaceae, Globularia album,Graminaceae, Hypericaceae, Iridaceae, Junceae, Labiatae, Lentibulariaceae, Liliaceae, Linaceae, Lythraceae, Malvaceae, Oleaceae, Orchidaceae, Orobancheceae, Paeoniaceae, Paperaceae, Palmeae, Pinaceae

(...)

I am not aware of any international procedures but nationally there are many court cases opened by the people whose lands have been confiscated. The legal basis for the Emergency Nationalization order (Acil Kamulaştırma) for the ABK project was successfully challenged in the Turkish Constitutional Court. A Constitutional Court ruling on 22 January, 2014 ruled that the Emergency Nationalization process was unlawful and should be stopped as there is no immediate or emergency national need for the ABK project. The Çeşme District Governor has refused to recognize and implement the Constitutional Court ruling stopping the ABK project.

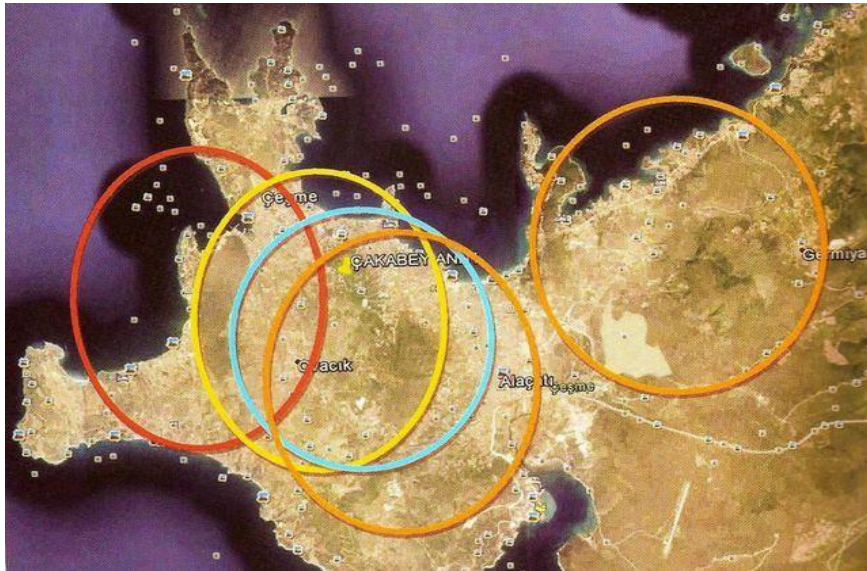
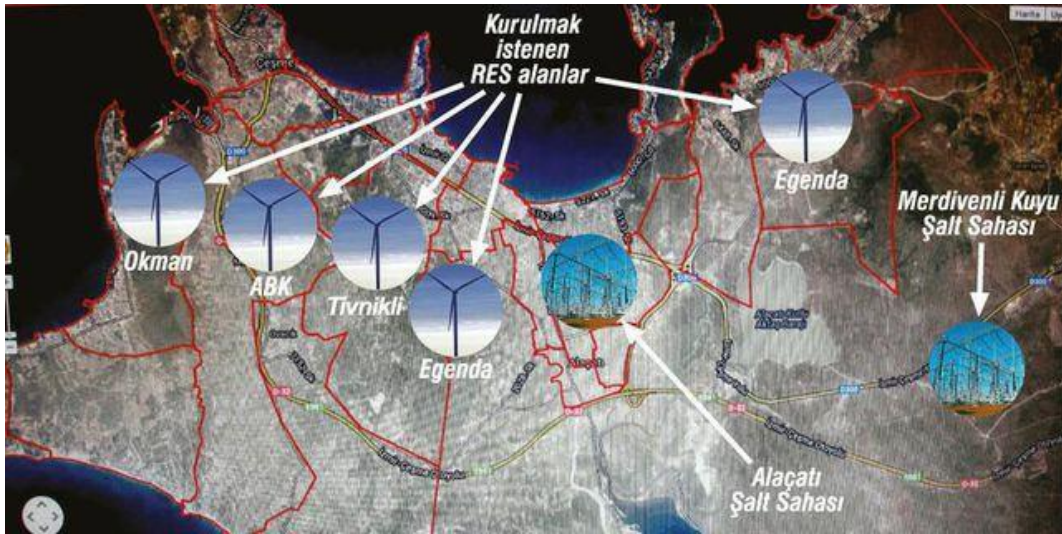
- The energy regulator EPDK does not have legal authority under Turkish law to grant permission for energy projects in
  - areas without an official zoning status. The Çeşme Municipality's 1/25,000 development plan designates the area being
  - developed by ABK as 'un-zoned'.

However, based on ABK's plans, EPDK applied directly to the Turkish Council of Minister's to obtain special permission for the project, thereby circumventing national laws, along with local planning controls and oversight. The legality of this action was overturned by the Turkish Constitutional Court on 24th March 2014 and the court ordered the project be stopped. This ruling has been ignored by ABK, local law enforcement officials, the State Prosecutor and the District Governor.

There has been no public consultation with the local population or local non-governmental organizations about the project since the start of the planning process in 2001. It is a legal requirement for all such projects in Turkey to be proceeded by an environmental impact assessment (Çevresel Etki Değerlendirmesi), which includes a consultation process with local people and relevant NGOs. This never happened. The WEI of concern in Çeşme, ABK, was granted an exemption from the environmental impact assessment process by the Turkish Ministry of Environment and Urbanisation on the grounds that it is below 20 MW capacity. However, the cumulative affect of the 5 proposed projects (over 100 MW capacity total) in such a small area should clearly require an environmental impact assessment. There is an ongoing court case in the Turkish Constitutional Court challenging the exemption from the environmental impact assessment granted to ABK. A similar exemption granted to a wind energy development in Urla, 30 km from Çeşme, was recently overturned by the Turkish Constitutional Court.

## References

- 1- Maps showing the WEIs in Çeşme peninsula as a whole and their zones of effect



Aerial Imagery of work completed

### SOME ENDEMIC SPECIES UNDER THREAT



**SAHLEP** is a flour obtained from the tubers of this damaged orchid genus namely **Orchis** (including species like **Orchis mascula** and **Orchis militaris**). These tubers rich in a delicious starch like polysaccharide called glucomannan have been the basic ingredient of a sweet warm winter drink called sahle, cooked with hot milk and sugar and favored by millions for centuries, not only in the Ottoman lands but also in other parts of Europe as well. It is also known as a potential aphrodisiac since Roman times. April enjoys their modest but majestic bloom on Çeşme hills.





The olive tree and wild Pistacio lentiscus shrubs thorn from land and thrown to sides for road construction for wind turbine transportation

2- <http://www.dw.de/t%BCrkei-neue-energie-um-jeden-preis/a-17742005>

3- Turkish Ministry of Environment and Urbanisation/ Directorate of the Protection of Natural Habitats' web page