

## 보 도 자 료

수 신 : 각 언론사 사회부, 산업부

발 신 : 기업과인권네트워크, 녹색법률센터

제 목 : **민가 280m에 지어진 지멘스 풍력발전기...국내 인권·환경 단체 독일  
공급망실사법 진정 제출**

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### 민가 280m에 지어진 지멘스 풍력발전기...국내 인권·환경 단체 독일 공급망실사법 진정 제출

- 전남 무안군 '신흥풍력발전소', 민가 280m 거리에 200m 높이 발전기 설치
  - 현지 주민 저주파 소음, 그림자 깜빡임 등으로 고통
- 獨 지멘스에너지 발전기 공급, 한국 법인 관리·운영 계약...국내 최초로 독일  
공급망실사법 진정 제출

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1. 2026년 4월 22일, 기업과인권네트워크와 녹색법률센터는 지멘스에너지를 상대로 독일 공급망실사법(*Lieferkettensorgfaltspflichtengesetz*, LkSG) 제14조 제1항 제2호에 따른 진정을 독일 경제수출감독청(BAFA)에 제출하였다.
  2. 본 진정의 대상인 '전남 무안군 신흥풍력발전소 조성 및 운영사업'은 국내에서 거주지와 가장 가까운 거리에 풍력발전기를 설치, 운영하는 사례로 발전기와 가장 가까운 민가와 거리 280미터에 불과하다.
  3. 현지 주민들은 사업 초기부터 발전기 설치로 인한 소음, 진동, 저주파의 건강 영향과 환경파괴 등을 우려하며 무안군에 민원 제출, 서명운동을 벌이는 등 사업에 지속적으로 반대했지만 사업은 강행되었다(무안신문 2016. 3. 15., 남도일보 2022. 8. 1. 등).
  4. 시험 가동을 시작한 2022년 12월부터 주민들은 발전기에서 나오는 저주파 소음과 생활소음, 움직이는 발전기 날개 그림자로 인한 '그림자 깜빡임' 현상 등에 지속적으로 노출되어 불면증, 두통, 어지럼증, 이명 등을 호소하고 있다(YTN 2023. 2. 20. 보도).

5. “풍력발전기 날개 돌아가는 그림자가 안으로 들어와 방에 있어도 어지럽습니다.” 이 피해자의 집은 발전기에서 280미터 거리에 있다. “밖에 있다가 집에 들어오더라도 풍력발전기 돌아가는 소리가 계속 나고 귀에서 웅웅 거려서 잠을 못 잡니다. 하루에 2시간 밖에 못자는 경우도 있어 예전에는 먹지 않던 수면제를 먹고 있습니다.”
6. 지멘스에너지는 발전기가 거주지에 지나치게 가깝게 설치되고, 인근 주민의 건강에 악영향을 미칠 위험이 크며, 이에 따른 주민 반대가 이미 다수 언론에 보도되었음에도 2021년 4월 한국 법인이 발전기 관리운영 및 유지보수를 담당, 상업운전 후 25년간 가동률을 보증하고, 독일 본사가 계약 이행을 보증하는 계약을 체결하였다.
7. 독일에서 2023년 1월 발효된 공급망실사법은 독일 내 직원 1,000명 이상 기업에게 공급망에서 인권·노동·환경 위험에 대한 실사(due diligence)를 의무화하고 있으며, 대상기업이 실사 의무를 위반하는 경우 감독기구인 경제수출감독청에서 시정명령, 공공계약 배제, 과태료 등 제재를 할 수 있다.
8. 독일 공급망실사법 시행 후 기업들이 피해자들과 자발적으로 협의하여 구제를 제공하는 사례가 늘고 있다. 에콰도르, 코스타리카 바나나 농장의 노동자 착취 문제에 대해 노동조합과 시민사회단체들이 독일 4개 슈퍼마켓을 상대로 진정을 제기한 결과 협상이 이루어졌고 노동 환경이 개선되었다. 국회에도 한국에서 활동하는 일정 규모 이상 기업에 인권·환경실사를 의무화하는 “공급망책임법” 제정안이 2건 발의되어 있다.
9. “기후 위기로 인한 재생에너지의 필요성에 대해서는 마을 주민 역시 깊이 공감하고 있습니다. 기후 위기로 인해 가장 피해를 많이 보는 사람들이 기후에 의존해서 살아온 농민들이기 때문입니다.” 기업과인권네트워크 김종철 변호사는 말한다. “그러나 역설적인 것은 기후위기로 인해 취약해진 농민들은 기후위기 대응으로 더 취약해진다는 것입니다. 무분별한 개발행위가 기후위기를 불러일으켰는데 기후위기 시대에 재생에너지는 일부의 탐욕을 채우는 또 하나의 산업으로 전락할 위기에 처해 있습니다. 빠른 에너지 전환을 위해서라도 정의로운 전환은 꼭 필요합니다.”
10. 기업과인권네트워크와 녹색법률센터는 독일 공급망실사법 시행 이후 국내 최초로 제출한 본 진정을 통해 지멘스에너지의 책임 있는 조치를 요구하며, 재생에너지로의 전환이 인권, 환경, 노동을 존중하는 ‘정의로운 전환’이 되어야 함을 강조한다.

▣ 별첨: 사건 개요, 진정서 원문(영문)

<별첨 1: 사건 개요>

- 신흥풍력(주)는 전라남도 무안군 운남면 내리 산39번지 일원에 '신흥풍력발전소 조성 및 운영사업' 진행. 2021년 7월 공사를 시작하여 지멘스에너지(당시 지멘스가메사) 4.5MW 발전기 총 4대 설치. 2022년 12월 시험운전 시작.



전남 무안군 운남면 신흥풍력발전소 일원(출처: 네이버 지도)

- 본 사업은 대한민국에서 거주지와 가장 가까운 거리에 풍력발전기를 설치하여 운영하는 사례로, 가장 가까운 거주지와 거리(이격거리)가 280미터에 불과함.
- 환경부는 풍력발전기를 주거지역으로부터 1,500미터 이상 떨어진 곳에 설치하도록 권고하고 있으며, 전남 무안군 또한 2018. 4. 30. 「무안군 관리계획 조례」 조례를 개정하여 풍력발전시설의 경우 정온시설로부터 1,500미터, 주거밀집지역으로부터 1,000미터 내 입지하지 못하도록 규정하고 있음.



풍력발전기와 민가(주황색 지붕) ©전영현

- 인근 마을 주민들은 사업 추진 초기부터 풍력발전기에서 나오는 저주파, 소음, 진동이 건강에 미치는 영향과 환경파괴 등을 이유로 사업에 반대하였으며, 2016년 2월, 2020년 12월, 2021년 11월 무안군에 민원을 제기함. 그러나 무안군은 신항풍력이 개정된 조례 시행 이전 개발행위허가를 신청하여 이격거리 제한이 적용되지 않으며 주민동의서와 설명회를 반드시 진행해야 한다는 규정은 없다고 회신함.
- 2022년 12월 시험운전 시작 후 주민들은 발전기에서 나오는 저주파 소음, 생활 소음, '그림자 깜빡임' 등으로 인해 불면증, 두통, 어지럼증, 이명 등을 호소함.

“집에 있어도 오전에는 풍력발전기 날개 돌아가는 그림자가 안으로 들어와 방에 있어도 어지럽습니다. 밖에 있다가 집에 들어오더라도 밖에서 들렸던 풍력발전기 돌아가는 소리가 계속 나고 귀에서 웅웅 거려서 잠을 못 잡니다.”

“저녁에는 풍력발전기 돌아가는 소리가 듣기 싫어서 TV소리를 키워 놓고 지냅니다. 잘 때에도 풍력발전기 돌아가는 소리가 들립니다. 하루에 2시간 밖에 못자는 경우도 있어 예전에는 먹지 않던 수면제를 먹고 있습니다.”

“풍력발전기 아래 밭이 1만 2천평 정도 있는데 해가 뜰 때 풍력발전기 날개가 돌아가면 밭 전체에 그림자가 지면서 돌아갑니다.”

“풍력발전기가 돌아갈 때 소리가 너무 커서 머리가 아프고 짜증이 많이 나고 집에 있든 밭에 있든 풍력발전기 날개의 그림자가 돌아가면 머리도 따라 도는 거 같아 어지러움이 심하고 몸도 돌아가는 거 같습니다.”

- 주민들은 2023년 7월에는 중앙환경조정위원회에 신흥풍력을 상대로 재정신청을 하였고, 위원회는 2024년 7월 저주파 소음으로 인한 정신적 피해를 인정하여 지역 주민 총 202명에게 금 24,327,310원을 지급하라는 결정을 내림. 그러나 신흥풍력은 이에 불복하여 주민 상대 채무부존재확인의 소를 제기함.
- 신흥풍력의 감사보고서에 따르면 신흥풍력은 2021년 4월 7일 지멘스에너지(당시 지멘스가메사) 한국법인과 관리운영계약을 체결하고 “사업시설의 관리운영 및 유지보수업무를 위탁”하였음. 또한 지멘스에너지에서 계약조건에 따른 가동률을 보증하여 지멘스에너지 본사(당시 지멘스가메사)가 계약 이행을 보증함.



풍력발전기의 지멘스가메사 로고 ©기업과인권네트워크

- 기업과인권네트워크와 녹색법률센터는 2025년 10월 1일 지멘스에너지 본사 내부진정절차를 통해 진정서를 제출하였으나, 6개월이 지난 지금도 답변을 받지 못함. 2025년 11월 18일 지멘스에너지 한국법인에 질의서를 보내었으나 답변을 받지 못함.



피해자 거실에서 보이는 풍력발전기 ©전영현

## <별첨 2: 진정서 원문>

\*피해자(진정인) 이름은 신원보호를 위해 가렸습니다.

### **What type of complaint would you like to file?**

*Destruction of the natural basis of life by environmental pollution under 2 para. 2 No. 9 German Supply Chain Act (LkSG)*

### **When did the violation occur?**

18 November 2021

### **Where did the violation occur?**

The violation occurred in villages around the Muan Unnam Wind Power Project (“the project”), located in Nae-ri, Unnam-myeon, Muan-gun, Jeollanam-do, Republic of Korea. The project owned by Shinheung Wind Power Corporation (“Shinheung”) consists of four 4.5 MW onshore wind turbines. The turbines were supplied by Siemens Energy (then Siemens Gamesa) and are currently operated and maintained by its Korean subsidiary.

The residents of nearby rural villages are mostly farmers and older persons. There are residential houses, farms, cattle sheds and shrimp farms within close proximity of the turbines. The house of the complainant [REDACTED], a 69-year-old farmer, is located only 280 metres from the nearest turbine. Please see the attached map of project area (attachment #1) and a view of the turbines (#15).

### **Describe the violation:**

This complaint is submitted against Siemens Energy (“the company”) on behalf of complainants [REDACTED], [REDACTED] and [REDACTED]. [REDACTED] and [REDACTED] are an elderly couple who grow vegetables around their house, located 280 metres from Turbine 1 and ~300 metres from Turbine 2. [REDACTED] is a shrimp farmer who operates an indoor shrimp farm located ~380 metres from Turbine 2 and ~550 metres from Turbine 3.

#### 1. Harmful noise emission

The wind turbines are located very close to residential houses and farms, exposing the complainants and other residents to harmful noise emission, especially low-frequency noise (LFN).

Since the turbines became operational in December 2022, the complainants had to endure constant low-frequency noise and other whooshing, high-pitched screeching noises coming from the turbines. The complainants endure these noises day and night, not only at home, but also outside on their farms where they work.

Noise measurements taken outside [REDACTED] and [REDACTED]'s house by Shinheung's contractor in October 2023 averaged 57dB(A) during the day and 51dB(A), even at the gentle wind of 3.3m/s (#2). Measurements taken personally by the complaints in their front yard often reach 70-85dB(A).

For low-frequency noise, the Environmental Dispute Mediation Commission conducted measurements in January 2024 and found that the noise level for the 31.5~80Hz range exceeds the tolerance limit (#3). The Commission awarded damages arising from LFN to 202 residents, including the complainants, but Shinheung has since filed a lawsuit to nullify this decision (explained further in subsequent section).

Extended exposure to harmful noise has harmed the physical and psychological health of the complainants and other residents. Psychological harm includes annoyance, anxiety, anger and depression, and physical symptoms include headaches, nausea, tinnitus (ringing in ears) and sleeping disorders.

For example, [REDACTED] has difficulty sleeping due to turbine noise at night. She relies heavily on sleeping pills and feels depressed and stressed whenever she sees the turbines. She receives ongoing medical treatment and medication for sleeping disorder, adjustment disorder and anxiety (#4).

The detrimental health effects of extended exposure to excessive noise are well-documented. Studies suggest the intrusive sound characteristics of wind turbine noise may cause a higher level of annoyance than other noises (Pedersen and Persson Waye 2004). Studies also show that prolonged exposure to LFN may lead to serious health consequences, including cardiovascular diseases (Chiu et. al. 2021).

## 2. Shadow flicker

“Shadow flicker” occurs when rotating turbine blades cast moving shadows and, at higher speeds, cause flickering of light and shadow in surrounding areas.

The 4.5 MW turbines produced and supplied by the company are relatively large for onshore wind turbines. According to the information submitted by Shinheung (#4), the height of the hub is 127.5 metres and the diameter of the blade is 145 metres. Thus the height from the base to the highest point of the blade (tip height) is approximately 200 metres.

The nearest turbine is only 280 metres from [REDACTED] and [REDACTED]'s house. The 200-metre-tall turbine casts moving, flickering shadows in their living room from around 0830 to 1100h every morning

(#5). The turbines also cast shadows on their farms near the house, which not only reduces sunlight reaching the crops, but also affects the complainants when they work the farms.

Shadow flicker has harmed the physical and psychological well-being of the complainants. According to [REDACTED], the shadows follow him whether at home or out in the field making him nauseous, as if his “body is also spinning”. In addition to physical symptoms of nausea and headaches, the shadows have also caused severe annoyance, high levels of stress, anger and depression.

Germany is one of the few countries with formal guidelines on shadow flicker. According to the Bundes-Immissionsschutzgesetz, the permitted threshold is maximum 30 minutes on the worst day of astronomical maximum shadow and maximum 8 hours per year of actual shadow. The complainants’ exposure to shadow flicker is well beyond these thresholds, due to the proximity of the turbines

### 3. Noise and vibrations from ground blasting

Due to the proximity of the turbines, the complainants also suffered serious harm from noise and vibrations emitted during the construction of the turbines, particularly during the blasting phase.

Construction on the project site began around April 2021 with the construction of roads leading to the turbines. Ground blasting began in November 2021 and continued through January 2022. The towers were erected around May to July 2022, and the turbines were completed around October 2022.

The blasting caused not only loud noises but also vibrations that made nearby buildings shake. They were so strong that the bathroom tiles in [REDACTED] and [REDACTED]’s house were damaged (#6).

Noise and vibrations from construction also caused the deaths of shrimp in [REDACTED]’s farm, located less than 400 metres from the project site. He had put baby shrimp in the water tanks in mid-August 2021, but they stopped eating as construction began and died when the blasting occurred in November. [REDACTED] believes the vibrations, transmitted through water tanks, caused extreme distress to the young shrimp. After the construction, he has not been able to operate his farm due to the sensitivity of young shrimp to LFN from the turbines.

### 4. Lack of free, prior and informed consent

The underlying cause of the harm is that the project proceeded without the free, prior and informed consent (FPIC) of local residents, including the complainants.

Residents in nearby villages have opposed the project from the earliest stages. In February 2016, residents filed a complaint to Muan county to express their concern about harmful low-frequency noise and vibration emissions, citing the negative health effects reported by residents living near turbines in the nearby Yeongam-gun (#7). When the permit was

conditionally granted in 2020, 215 residents from five nearby villages signed petitions opposing the project (#8).

The complainants never gave their consent to the project. Shinheung appears to have received consent from a small number of residents by offering larger individual compensation, while other heavily affected residents including the complainants were excluded.

### **Where did you obtain your information on the potential violation? (voluntary)**

Information presented in this complaint are based on (1) personal experience and testimony provided by the complainants, (2) testimony of other local residents, (3) information obtained during field visits to the project site, (4) information submitted by Shinheung for proceedings before the Environmental Dispute Mediation Commission and to the Court, and (5) other publicly available information such as company disclosures and audit reports.

Information establishing Siemens Energy's link to project and the harm was obtained mainly through the external audit reports of Shinheung (#9). Section 17(1) of the latest audit report states:

"On April 7, 2021, the Company entered into a management and operation agreement with Siemens Gamesa Renewable Energy, Limited regarding the 'Shinheung Wind Farm Development and Operation Project in Muan-gun, Jeollanam-do,' and entrusted the management, operation, and maintenance of the project facilities to Siemens Gamesa Renewable Energy, Limited.

As of the end of the reporting period, regarding the capacity factor of the wind turbines, we have received a guarantee from Siemens Gamesa Renewable Energy, Limited for the capacity factor in accordance with the contract terms for 25 years following the commencement of commercial operation, and Siemens Gamesa Renewable Energy, S.A. (the parent company of Siemens Gamesa Renewable Energy, Limited) guarantees the performance of the contract."

Siemens Gamesa Renewable Energy, Limited (now Siemens Energy Limited) is the South Korean subsidiary of Siemens Gamesa Renewable Energy, S.A (now Siemens Energy).

Therefore, we believe the company's Korean subsidiary continues to manage, operate and maintain the wind turbines and related facilities pursuant to the 25-year contract, the performance of which is guaranteed by the company.

Also, the turbines were also produced and supplied to the project by the company, as indicated in the Mediation Commission adjudication decision (#3). The Siemens logo is also clearly visible on the turbines (#10).

The company contributed to, or at least is directly linked to, the negative human rights impacts by continuing to manage, operate and maintain them through its South Korean subsidiary. The company knows or should know of the harm to the local residents, as there have been multiple media reports on their grievances since as early as 2016 (#12). However, the company made no effort to engage with the residents and took no steps to mitigate the harm, such as by limiting the operation of the turbines at night.

We have attached some of these documents and photos to this complaint. We can provide further clarification, evidence or translation of relevant sections upon request.

### **Have legal steps already been taken?**

Yes

### **If yes, which ones and by whom? (e.g. is already in legal clarification by lawyer, court)**

On 7 July 2023, 244 affected residents (including the complaints) filed an application to the Central Environmental Dispute Mediation Commission against Shinheung, seeking remedy for harm caused by the project. In the application, the residents raised a range of grievances including low-frequency noise, shadow flicker and lack of FPIC. In addition to damages, the residents sought the removal of the turbines. The applicants were represented by a member of KTNC Watch.

After the application was filed, Shinheung engaged in intimidation and harassment against the residents. On 31 July 2023, a representative visited the house of [REDACTED] and [REDACTED], reproaching them for filing the application and threatening to sue them for billions of KRW in damages (voice recording available).

In July 2024, the Commission released the adjudication decision (#3), awarding total KRW 24,327,310 in damages to 202 residents for psychological harm caused by low-frequency noise. The Commission did not address harm from shadow flicker, saying it was outside the scope of its mandate under the Environmental Dispute Mediation Act. The Commission also did not address the lack of FPIC or other types of harm raised. Under this decision, each applicant would only receive KRW 120,432 (around USD 80) on average.

However, Shinheung filed a lawsuit against the 202 residents in September 2024, seeking the court's decision that they are not obligated to pay the damages. For the residents (now defendants), loss of the lawsuit may result in large damages, including potential legal and noise measurement costs, far exceeding the amount awarded by the Commission. As a result, most residents settled with Shinheung with the promise that they will not pursue further action against

them. We believe this is a textbook example of a strategic lawsuit against public participation (SLAPP).

The litigation is ongoing at the Mokpo Branch of Gwangju District Court, and members of KTNC Watch and Green Korea Legal Center represent the three complainants. Since this is a defensive lawsuit, there is little chance that the proceedings will result in adequate remedy for the complainants.

On 1 October 2025, KTNC Watch and Green Korea Legal Center submitted a report to the company's internal grievance mechanism "Speak Up" (#12). Until now, we only received this short message on 27 November 2025: "We would like to inform you that the investigation into your matter is still ongoing. Once our work is completed, you will be notified." (#13)

On 18 November 2025, KTNC Watch and Green Korea Legal Center sent a questionnaire to the company's Korean subsidiary, requesting clarification on the nature of their involvement in the project and seeking dialogue (#14). We did not receive a reply.