

Report, October 2021

Greenwashing occupation

How Morocco's renewable energy projects in occupied Western Sahara prolong the conflict over the last colony in Africa.



WSRW WESTERN SAHARA
RESOURCE WATCH

6 July 2021, Motril, Spain:
Large masts are loaded
aboard a German vessel
for transport to occupied
Western Sahara, for the
largest energy project ever
undertaken in the territory.



Executive Summary

In Western Sahara, Africa’s last colony, renewable energy projects are used to sustain an illegal foreign occupation.

In November 2021, when the governments of the world will meet in Glasgow for the COP26 climate talks, Morocco - the occupying power of Western Sahara - is in the process of erecting its largest energy project on occupied land to date. It is but one part of a comprehensive plan to build controversial infrastructure on the land it illegally occupies.

This report exposes all existing and planned renewable energy projects in the territory. It estimates that the energy produced from wind in occupied Western Sahara could constitute 47.20% of Morocco’s total wind capacity by the year 2030. By that same year, the share of solar power generated in the territory could be between 9.70% and 32.64% of Morocco’s total solar capacity - likely towards the higher end of that range.

The energy generated on occupied land increases Morocco’s dependency on the territory that it occupies. As such, the projects fundamentally undermine the UN peace efforts in Western Sahara directed towards allowing the expression of the right to self-determination of the Saharawi people. The energy is used by industries that plunder the territory’s non-renewable resources, and provides job opportunities attracting more settlers from Morocco. It may also, in time, be exported abroad, including to the EU.

Morocco brands itself internationally as best in class on renewable energy as part of its commitments under the Paris Agreement. States, however, are only meant to present efforts undertaken in their own territory, not outside of their borders. The UN body that registers and reviews state parties’ achievements, the UNFCCC, claims that it is not in a position to assess the content of the submissions. The scandal of the UNFCCC’s complacency is, of course, compounded by the fact that Morocco’s energy projects can only be carried out under the military occupation that the UN’s central bodies have declared illegal.

None of the companies participating in the renewable energy industry inside Western Sahara, including those most implicated - Italian company Enel and Spanish Siemens Gamesa - have clarified whether they have even tried to obtain the consent of the people of the territory.

Instead, the companies refer to an alleged ‘consultation’ of local ‘stakeholders’ or ‘population’. This is the exact same flawed approach taken by the European Commission in its trade and fisheries agreements with Morocco. The European Court of Justice ruled on 29 September 2021 that the EU’s approach in Western Sahara is illegal. The Court explicitly stated that the liberation movement Polisario is the representative of the Saharawi people, that consent must be obtained from them, and that a ‘consultation’ with the ‘population’ cannot substitute the legal requirement of Saharawi consent.

Taking into account the applicable international law as elaborated in the 29 September 2021 ruling from the EU Court of Justice, Western Sahara Resource Watch demands an immediate exit of all energy companies from the occupied territory. Further, WSRW asks states to challenge Morocco’s systematically erroneous climate reporting.

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Western Sahara Resource Watch (WSRW) is an international organisation based in Brussels. WSRW, a wholly independent non-governmental organisation, works in solidarity with the people of Western Sahara, researching and campaigning against Morocco’s resource plundering of the territory.

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List of abbreviations	
AfDB	African Development Bank
COP	Conference of the Parties
CJEU	Court of Justice of the European Union
EEM	Énergie Éolienne du Maroc
EIB	European Investment Bank
FDE	Fond de Développement de l’Énergie
GW	Gigawatts
KfW	German Development Bank
KV	Kilovolt
MAD	Moroccan Dirham
Masen	Moroccan Agency for Sustainable Energy (previously: Moroccan Agency for Solar Energy)
MW	Megawatts
NDC	Nationally Determined Contribution
OCP	Office Chérifien des Phosphates
ONEE	Office Nationale de l’Électricité et de l’Eau Potable
SIE	Société d’Investissement Énergétique
SNI	Société Nationale d’Investissement (now: Al Mada)
UNFCCC	United Nations Framework Convention on Climate Change

Energy eldorado

Morocco is switching to solar and wind power to fulfill its energy needs and to reduce its dependency on energy imports. In occupied Western Sahara, the potential is enormous.

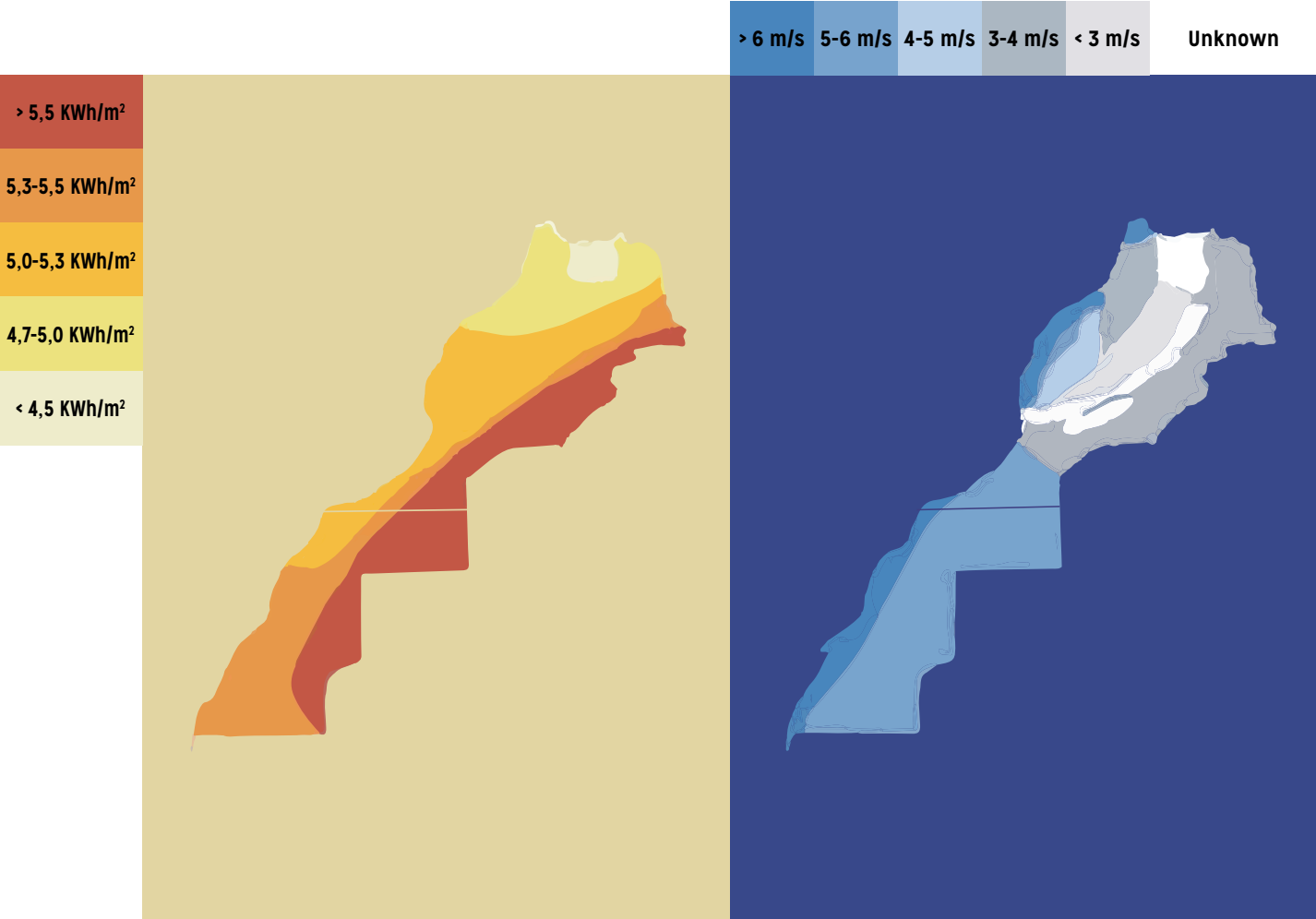
More than 90% of Morocco's energy is imported from abroad. Energy imports (crude oil and oil products, coal, natural gas, and electricity) amounted to 49.965 billion MAD in 2020 (or 11.8% of the cost of all imports). In 2020, petroleum products were mainly imported from Spain, Saudi Arabia and the USA, while natural gas came from the USA and Algeria.² Morocco's dependency extends to Western Sahara, where gas and petroleum is imported from European terminals for infrastructure and industries that are critical for an illegal occupation.³ Morocco's national oil company has signed exploration agreements with international energy companies to explore its own potential oil and gas potential and that of Western Sahara. However, there are no indications that the areas being explored will contain the necessary reserves and be available any time soon to replace the kingdom's dependency on imported energy.

To meet the rising energy needs of its growing population, Morocco has turned to implementing strategies for the promotion of renewable energy. In 2008, Morocco launched the National Renewable Energy and Energy Efficiency Plan, setting out the ambition that 42% of its total installed power capacity would come from renewable energy by the end of 2020. The goal meant commissioning new plants to bring total capacity to 2,000 MW from solar, 2,000 MW from wind and 2,000 MW from hydro. In 2015, during the 21st conference of member states of the UN Climate Convention (UNFCCC), Morocco announced plans to increase its renewable capacity to 52% of total energy needs by 2030. To meet such a target, the country aims to add around 10,000 MW of renewable capacity until 2030, consisting of 4,560 MW of solar, 4,200 MW of wind, and 1,330 MW of hydropower capacity.⁴

Over the medium to long term, Morocco hopes to increasingly export electricity from renewable energy to Europe and Africa. And

the goal is within reach. While Morocco's electricity imports from Spain had increased sharply over the last decade, that relation reversed in 2019 when Morocco became a net exporter to Spain with a modest 771 GWh. While this may not be much – a nuclear plant could generate that amount in about a month's time – it is the turnaround itself which is astounding.⁵ In 2018, Spain was a net exporter of electricity to Morocco with 3,300 GWh. In 2017, Spain's net exports to Morocco had amounted to 5,000 GWh. The fact that Morocco was able to become a net exporter confirms it is confident it can first meet its national electricity demand.⁶ An important factor is the country's heavy investment in renewable energy projects.

Western Sahara's potential for renewable energy projects is massive. According to the Moroccan think-tank Policy Center for the New South (formerly OCP Policy Center), each km² of desert receives an annual amount of solar energy equivalent to 1.5 million barrels of oil, which demonstrates a theoretical capacity of the world's deserts to supply several hundred times the planet's electricity needs. "Nearly 60% of the country's solar and wind power production is concentrated in the southern provinces of the Kingdom", the Center claims. Although the figure does not reflect the current reality (one of lower production), it illustrates how important the development of Western Sahara is from a Moroccan perspective. Putting the energy needs of these "provinces" at 120 MW, the Center concludes that in generated wind energy alone, a surplus nine times as big can be transferred elsewhere in the Kingdom or to Europe.⁷ A decidedly more independent source, the World Bank, puts the offshore wind power potential of Western Sahara at 169 percent greater than that of Morocco. In doing so, the World Bank reveals, yet again, the enormous importance of the occupied territory for Morocco's much desired energy self-sufficiency.⁸



What is the problem?

- Morocco's energy infrastructure on occupied land:**
- Gives an aura of acceptability to Morocco's unlawful military presence in Western Sahara. Construction of electric power generation and distribution infrastructure lends a greater appearance of legitimacy to the occupation of the territory, in circumstances that continue to delay the Saharawi people's right to exercise self-determination. The infrastructure is built without consent from the Saharawi people⁹;
 - Involves large multinationals and government financial institutions in an already complex conflict dynamic through the construction of physical infrastructure inside occupied Western Sahara;
 - Is part of Morocco's diplomatic swing towards African countries, using its renewable experience and companies to entice support for its occupation of Western Sahara;¹⁰
 - Entrenches Morocco's presence in Western Sahara. Increased electrical capacity is an incentive for additional Moroccan settlers to move to and remain in the territory. Alarming, it appears that part of the generated electricity is intended for export to Morocco's national grid. Morocco thus becomes even more economically connected to, and dependent on, the territory it has occupied. This will become even more problematic if European and African states start importing energy produced in the territory in the future;
 - Contributes to Morocco's taking of natural resources from Western Sahara, in violation of international humanitarian law. The energy obtained through the wind and solar plants results in more economically efficient industries, such as phosphate mining and the fish sector;
 - Undermines the UN peace process. The king of Morocco has a direct financial interest in the renewable energy projects and the continuation of the stalemate. This impairs any motivation to engage with the UN for the just settlement of the conflict, and hence contributes to prolonging the humanitarian crisis facing the large portion of the Saharawi people who have fled the territory and live in refugee camps in Algeria. The majority of the refugee population has only very limited access to electrical power, with resulting problems in terms of safety, food hygiene, education and sparse social activities.



6 Hundreds of refugees from Western Sahara protest Siemens AG's construction of Moroccan energy infrastructure at Fom El Oued, to be used for the plunder of the occupied territory's diminishing phosphate reserves.

The last colony in Africa

1960
The UN adopts resolutions 1514 (XV) and 1541 (XV) on the independence of colonial countries and peoples.

1966
The UN urges the colonial power Spain, under UN supervision, to decolonise Western Sahara in accordance with the right to self-determination.

1975
A UN General Assembly visiting mission that had visited Western Sahara finds full support for independence. No factions supporting the territorial demands of neighboring countries are encountered. The International Court of Justice states that the territory belonged to neither Morocco nor Mauritania prior to Spanish colonisation and confirms that the people of Western Sahara have a right to self-determination. Morocco and Mauritania invade the territory. Many Saharawis are forced to flee in the coming months. The UN Security Council condemns the invasion and calls on Morocco to withdraw from the territory.

1976
Spain withdraws from the territory without having fulfilled its obligations. The liberation movement Polisario Front declares the Saharawi Arab Democratic Republic (SADR).



1979
Mauritania drops its claim to Western Sahara and recognizes the SADR. Morocco proceeds to invade the area previously under Mauritanian control. The UN condemns the expansion of the Moroccan occupation.

1991
Morocco and Polisario agree to a ceasefire. The agreement includes provisions to organize a referendum on independence and for the establishment of the UN Mission for a Referendum in Western Sahara (MINURSO) in the territory.

2000
MINURSO concludes its list of eligible voters. After eight years of delays, Morocco states it does not want a referendum after all.

Morocco has divided the territory of Western Sahara into two, by the world's biggest landmine field and a military wall. The picture shows the parts controlled by Morocco to the right, and the Polisario-controlled area to the left.

Today
The conflict remains unresolved. Morocco continues to colonise the territory.

2021
After a vacuum of over two years, and after months of Morocco objecting, the UN appoints a new Personal Envoy for Western Sahara of the UN Secretary-General in September.

2020
Morocco violates the terms of the ceasefire arrangement in November. Armed conflict resumes, ending nearly three decades of truce.

2007
Negotiations between the parties are resumed, but Morocco stalls. Eight years later, the UN Special Envoy expresses his frustration that Morocco does not wish to negotiate. In the following years, sporadic attempts to revitalize the deadlocked process via preliminary rounds of talks predictably fail as Morocco continues to object to the Saharawi people exercising their right to self-determination in a referendum.

Renewable energy and international law

A new ruling from the EU Court of Justice underlines the illegality of projects in Western Sahara. Morocco’s renewable projects are just as much in violation of international law as is its plunder of minerals.

In particular, the Court finds, first, that in view of the legal definitions of ‘people’ and ‘consent’ in international law, the ‘consultations’ conducted by the institutions with the ‘people concerned’ did not amount to an expression of the consent of the people of Western Sahara. That approach made it possible, at most, to obtain the opinion of the parties concerned, although that opinion did not determine the validity of the agreements at issue or bind those parties in such a way that those agreements could be enforced against them. Next, the Court considers that the various factors relating to the specific situation in Western Sahara, relied on by the Council, do not show that it would be impossible, in practice, to secure the consent of the people of Western Sahara to the agreements at issue, as a third party to those agreements. Lastly, the Court notes that the institutions cannot validly rely on the letter of 29 January 2002 from the UN Legal Counsel to substitute the criterion of the benefits of the agreements at issue for the populations concerned for the requirement of the expression of such consent. The Court concludes that the Council did not sufficiently take into account all the relevant factors relating to the situation in Western Sahara and wrongly considered that it had a degree of discretion in deciding whether to comply with that requirement.

On 29 September 2021, the EU Court of Justice ruled that the EU’s approach to Western Sahara constitutes a violation of the rights of the Saharawi people. It is not enough to “consult” a “population”, but one needs the explicit consent from Polisario, the UN-recognised representation of the people of Western Sahara, the court concludes.

“Siemens should demonstrate how its activities in Western Sahara are in line with the interests and wishes of Saharawis, in accordance with the right to self-determination stipulated in the International Covenant on Civil and Political Rights and International Covenant on Economic, Social and Cultural Rights. Should this not be possible, the company should withdraw from Western Sahara.”

Erste Asset Management, regarding Siemens AG’s “operations in occupied territory”.¹¹

On 29 September 2021, the EU Court of Justice ruled that the EU’s controversial trade and fisheries agreements with Morocco cannot cover Western Sahara. In its ruling, the Court clarified several elements that would be fundamental for any government or company that seeks to engage in the territory.

The Court specifically argued that undertaking ‘stakeholder consultations’ with the ‘local population’ in Western Sahara in order to define how operations generate ‘benefits’, was far from what the EU should have done. These elements cannot substitute the obligation to obtain the ‘free and genuine’ consent of the people of the territory, the Court stated. Consent must be obtained from Polisario, the UN recognised representation of the people of Western Sahara.

This is the fifth time since 2015 that the Court pronounced on the practice of applying EU-Moroccan bilateral agreements to Western Sahara. A 2016 ruling concluded that the territory of Western Sahara is separate and distinct from Morocco, and that, consequently, EU agreements with Morocco cannot be applied to Western Sahara, unless with the consent of the people of the territory.¹²

To defend its agreements with Morocco in the occupied territory, EU institutions used a UN legal opinion from 2002.¹³ The document – often referred to as the ‘Corell Opinion’, named after its author – was written for the UN Security Council at a time when Morocco had initiated petroleum exploration in the territory. Its conclusion noted that “if further exploration or exploitation were to proceed in disregard of the interests and wishes of the people of Western Sahara, they would be in violation of the principles of international law applicable to mineral resource activities in Non-Self-Governing Territories.”

However, the EU never referred to this crucial conclusion of the Corell opinion, but only random segments elsewhere in the text. In this way, the EU systematically ignored the entire element of self-determination. The author of the UN opinion stated he was ‘embarrassed’ to be European after the EU had misrepresented and misused his text to legitimise trade agreements that what he said would be ‘obviously’ in violation of international law.¹⁴

In its 29 September 2021 ruling, the Court systematically decomposed the chain of arguments used by the EU Commission and Council. There is no contradiction between the EU Court’s earlier rulings and the Corell opinion, the Court argued, stating that the core message of the Corell opinion was found in the concluding paragraph.

The Court further highlighted that the UN legal opinion treats Morocco as an administering power ‘by analogy’, underlining that Morocco *is not* in actuality. Morocco does not consider itself as the administering power of Western Sahara, nor can it be considered as such (given the status of the territory).¹⁵ It also stated that if supposing that the conclusions of the UN legal opinion could be transposed, it would follow that activities in Western Sahara must be in conformity not only with the interest of the people of Western Sahara, but also with their will – and failing on the latter, would render them contrary to the principles outlined in the opinion.

The selective reading of the Corell opinion – now so clearly criticised by the EU Court – is also made by private companies, including the consultancy firm Global Diligence, which allegedly carried out ‘stakeholder consultations’ as preparatory work for an energy project of the French company ENGIE.¹⁶

An often-heard argument of actors involved in Morocco’s renewable energy projects in Western Sahara is that they are not taking part in the physical removal of finite resources. Sun and wind are free, and can’t be taken, seems to be the reasoning. But that argument blurs the main legal problem: the Saharawi people have not consented to the operations, which are in themselves a violation of International Humanitarian Law (IHL).

By 2019, all companies engaged in petroleum exploration or phosphate imports had terminated their connection with the territory. During the last decade, while global investors engaged with these actors, a large body of international law has materialised, one that strongly supports self-determination.

In October 2015, the UN Committee overseeing States’ implementation

of the Covenant on Economic, Social and Cultural Rights urged Morocco to respect the Saharawis’ right to consent with regard to the exploitation of their resources.¹⁷

In 2016, the UN Human Rights Committee echoed those conclusions and recommended Morocco obtain the consent of the people of Western Sahara “to the realization of developmental projects and [resource] extraction operations”.¹⁸

The African Union issued a Legal Opinion in 2015, concluding that “the people of Western Sahara and their legitimate representatives must not only be consulted, but they must consent and effectively participate in reaching any agreement that involves the exploitation of natural resources in the territory”.¹⁹ Similarly, the AU’s Peace and Security Council has condemned the exploitation of Western Sahara’s natural resources, calling it “a hostile act likely to perpetuate the conflict and colonialism in Western Sahara”.²⁰ The AU has maintained its position after Morocco’s return to the organisation, urging Morocco to end the “illegal exploration and exploitation of the Territory’s natural resources”.²¹

The fact that Morocco has no legal mandate to be present in the territory was underlined by Spain’s highest criminal court in 2014, which concluded that Spain is still formally the administering power of Western Sahara, as it had never properly decolonised.²²

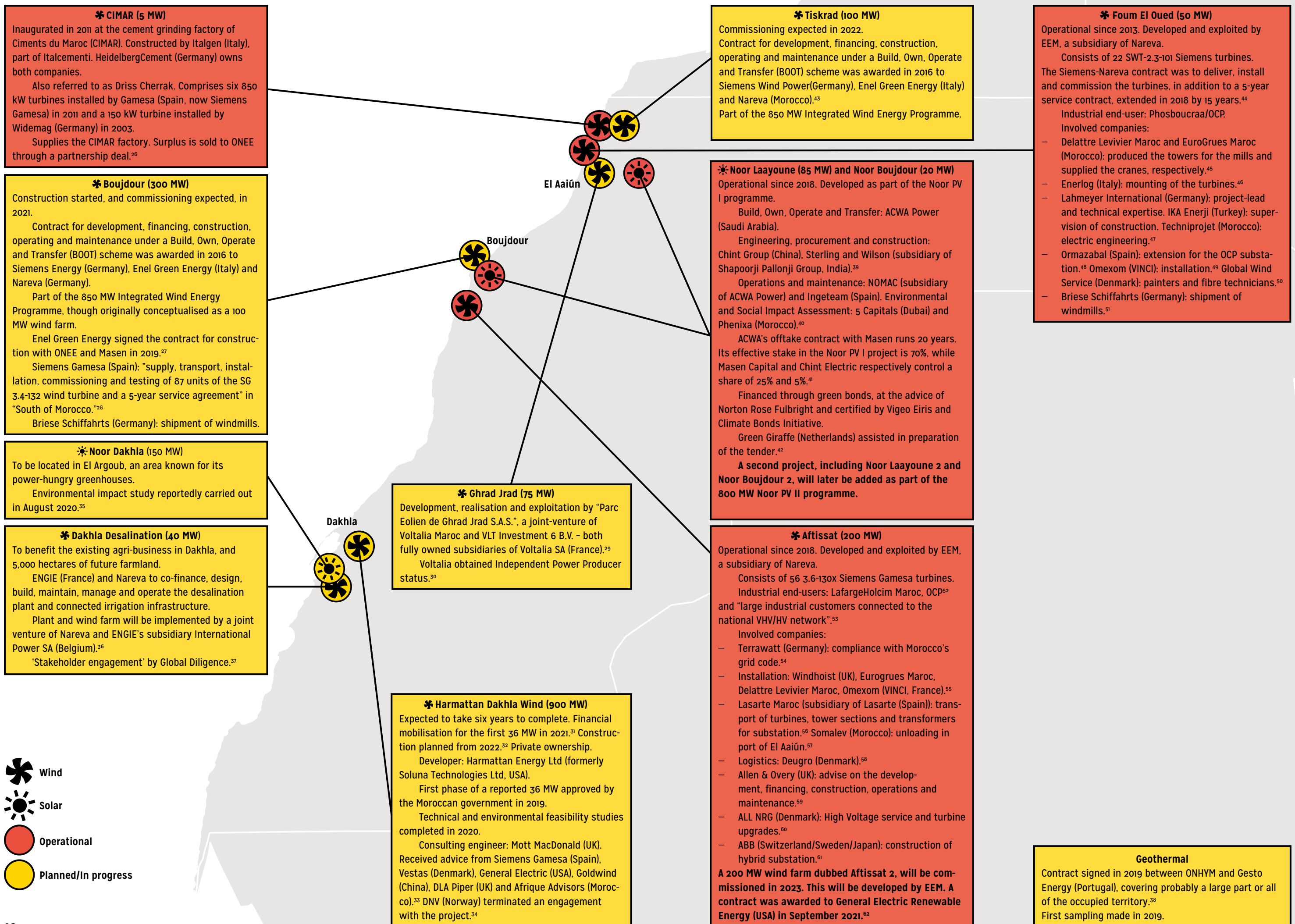
The renewable energy projects in occupied Western Sahara thus require the consent of the people of Western Sahara. This is also underlined by the author of the 2002 UN legal opinion.²³

Some companies have viewed their approach in the context of the ‘free, prior and informed consent’ (FPIC) principle as applied on indigenous lands elsewhere in the world. This is not a useful comparison. The EU Court specifically rejects the application of FPIC argumentation.²⁴ Indigenous FPIC processes take place within an internationally recognised sovereign state – but in the case of the Saharawis, it refers to something fundamentally different: the right to self-determination and independence of a people of a non-self-governing territory, of a ‘separate and distinct’ nature from the neighbouring Morocco that occupies it. The Saharawis have what international law defines as ‘permanent sovereignty’ to decide these resource-related matters themselves.

The construction of renewable energy infrastructure by an occupying power not only violates the right of non-self-governing peoples to self-determination, but also IHL, which serves to protect a civilian population under occupation. IHL is directly concerned with material well-being, that is, their security and the prevention of maltreatment. But IHL is also about maintaining, or preserving, the status of such a people: about ensuring the identity of an occupied population. An occupier cannot transfer people into an occupied territory, nor out. Extending an occupation – beyond securing the occupied place and maintaining ‘public order’ – through building infrastructure to further the occupation or provide for an illegal settler population contravenes such rules.

Saharawis are today a minority in their own homeland, outnumbered by Moroccan settlers that have either permanently moved into the territory or stay for extended periods as seasonal workers. Settlers are attracted by job opportunities created by the industries that have emerged on the back of Morocco’s exploitation of the territory’s resources – a development that has become more profitable precisely because of the renewable projects. The research service of the German Bundestag has studied legal implications under IHL of Morocco’s settlement policy in the occupied territories.²⁵ Wind parks that already operate in occupied Western Sahara provide energy for Morocco’s exploitation of non-renewable resources. In fact, practically the entire phosphate sector in the territory – operated by a Moroccan state-owned company and increasingly maligned by investors worldwide – runs on wind energy.

Under IHL, it is a crime to build public infrastructure that entrenches a specific criminal act, such as occupation or annexation of a territory. Infrastructure that ‘converts’ and transmits a resource of any kind – finite or renewable – is no exception.



Solar plans

The Moroccan government has allocated enormous tracts of land for solar projects in occupied Western Sahara



The Moroccan Solar Plan, also referred to as the Noor Solar Plan, is a Moroccan public programme that was announced in 2009, in the presence of the Moroccan king. The programme had a target of solar capacity of 2,000 MW by 2020 and would be implemented through the Noor projects by a specially assigned institution, the Moroccan Agency for Solar Power (Masen), together with ONEE. Projects under the plan are typically developed through an Independent Power Producer competitive bidding process, in which Masen invites private developers to tender for projects on a so-called “build, own, operate and transfer” (BOOT) basis, supported by a 25 year fixed term Power Purchase Agreement with Masen.⁶³

Initially, five locations had been identified for installing the 2,000 MW – two of them in occupied Western Sahara: 500 MW in El Aaiún (Foum El Oued) and 100 MW in Boujdour, which together were to comprise 30% of total envisioned capacity under the programme.⁶⁴

Implementation has not been straightforward and is complex to research: the projects in Western Sahara are included in bigger tenders, which tend to obfuscate how much capacity will be installed at which location. While it is clear how much solar capacity is currently operational in Western Sahara, future developments are somewhat more obscure.

Today, there is 105 MW operational solar capacity in occupied Western Sahara, or 14.85% of Morocco’s total installed solar capacity. Estimating the capacity by the 2030 horizon is at present speculative.

In 2018, the two first solar plants in Western Sahara were inaugurated: 85 MW Noor Laayoune, located in the rural commune of Edchera near El Aaiún, and 20 MW Noor Boujdour in the Lamsid rural area. The plants were part of the so-called **Noor PV I programme** – under the Moroccan Solar Plan – consisting in the construction of photovoltaic (PV) solar plants on three sites: Ouarzazate, El Aaiún and Boujdour.⁶⁵

Noor PV I was implemented by Saudi Arabian company ACWA Power, which had won the tender to develop all three plants under a BOOT-scheme. The contract also included construction of a power line connection to nearby substations or existing power lines owned by ONEE. ACWA’s winning bid was announced at the UN Climate Conference, COP22, in Marrakech in 2016.⁶⁶

ACWA Power contracted Dubai-based consultancy firm 5 Capitals for an Environmental and Social Impact Assessment and what it referred to as a “Stakeholder Engagement Plan”. The studies list several reasons why the sites in Boujdour and El Aaiún were chosen: topping that list is – without a sense of irony – “abundant unoccupied land”. Land acquisition was “not within the scope of ACWA Power as Masen is the owner of the land and will lease the allocated plot for the proposed project”, the study explains. Masen procured the land “through a voluntary buyer-seller agreement between the Moroccan State and Masen.”⁶⁷

Not once in any of its documentation pertaining to the two projects on occupied land – from factsheets over technical assessments to annual reports – does ACWA Power mention the actual location of its project sites: Western Sahara. Instead, the company consistently refers to both locations as in Morocco.⁶⁸ ACWA has not responded to letters from WSRW.⁶⁹

Construction started in 2017 and the plants were inaugurated in 2018, both in the presence of the king of Morocco.⁷⁰

So-called Green Bonds were issued to finance the Moroccan-Saudi infrastructure programme. The certification of the bonds was done by the Climate Bonds Initiative and the Moroccan-French-UK company Vigeo Eiris.

Climate Bonds Initiative was asked by WSRW in five mails about how it had obtained permission from the people of the territory to assist in securing financing for a project on occupied land.⁷¹ The

initiative did not respond. In 2019, it posted on its website a Masen report of the Noor PV I project that repeatedly stressed that Western Sahara is part of Morocco.⁷²

Vigeo Eiris – which paradoxically markets itself as a provider of environmental, social and governance research and services for investors – has issued strong statements of support to Morocco’s position on the occupation, questioned the status of the territory as occupied, minimised the right to self-determination and on several occasions even referred to the territory as “the western side of Sahara” or “the region of Sahara”.⁷³ Vigeo Eiris refused to answer central questions raised by WSRW. All board members of the company were contacted, only one of whom responded.⁷⁴

However, the solar plan did not stop with the Noor PV I programme.

In 2020, Masen and the Moroccan Ministry for Energy and Environment issued a call for expressions of interest for the first phase of the 800 MW **Noor PV II** programme.⁷⁵ The first phase aims at installing 400 MW across multiple sites, two of which in occupied Western Sahara, referred to as Boujdour 2 and Laayoune 2.⁷⁶

The tender for the first phase of Noor PV II was relaunched in 2021, this time with more detail. The multi-site programme had been narrowed down to six sites in Morocco proper, for a combined capacity of 400 MW.⁷⁷ Contracts are anticipated to be signed in late 2021.⁷⁸

The lower number of sites does not mean that Laayoune 2 and Boujdour 2 have been cancelled. Masen still features them as future projects on its website. This suggests that the anticipated phase 2 of the tender, which is not yet announced, could include both Noor Boujdour 2 and Noor Laayoune 2.

What is remarkable is the size of land made available for the two plants. With 1,330 hectares reserved for Noor Laayoune 2 and 1,690 hectares for Noor Boujdour 2 the total acreage for the two Western Sahara projects is nearly identical to the combined acreage of all six projects that are part of the 400 MW tender for the first phase of the 800 MW project.⁷⁹

Upon completion of the Noor PV 2, Noor Boujdour 1 + 2 could have a similar acreage as one of the world’s largest concentrated solar plants: the 572 MW Noor Ouarzazate in Morocco proper.

According to a Saharawi media group based in the occupied territories, Moroccan authorities in 2018 had evicted Saharawis by force from their lands at a location called Edaoura, 40 kilometers north of El Aaiun as the place was supposed to be used for a solar park. The evicted have allegedly been forced to sign agreements with different Moroccan government bodies. WSRW has not been able to confirm this information.⁸⁰

Finally, another chapter of the solar plans is being written. In 2020, Masen revealed its plan to construct **a solar plant near Dakhla**. The plant will be located in El Argoub on the east bank of the Dakhla bay area, known for its power-hungry agri-businesses – some of which are owned by the king of Morocco. An environmental impact study has reportedly been carried out in 2020. The plant is described to be part of the Moroccan Solar Plan.⁸¹ A report commissioned by the Moroccan government of a Spanish firm, puts the plant’s capacity at 150 MW.⁸² At the time of publication, a timeline for construction was still unknown, though the aforementioned study suggests 2022-2025.

Biggest to date

The largest energy project ever in the history of Western Sahara is currently being built. In September 2021, enormous volumes of components were shipped to Western Sahara.



87 windmills are now being erected as part of the largest energy project to date in occupied Western Sahara, by Italian company Enel. These pictures were taken in September 2021.

When this report went to print, a dozen shipments transporting windmill components from Spain to Western Sahara had been taking place over the course of the previous two months. The larger masts were transported from Motril, the blades from Tangier and engine-gear from Bilbao.

The material is shipped in for the construction of the large Boujdour wind park. In total 87 masts will be erected as part of the 300 MW project.

The contract to kick-off construction had been signed by Enel Green Energy, ONEE and Masen in 2019, hinting at a financial cost of €375 million.⁸³ Enel confirmed to WSRW in September 2021 that the work had indeed started.⁸⁴

In September 2020, Siemens Gamesa declared having “received a firm order for supplying wind turbines to the consortium between Nareva and ENEL Green Power for the Boujdour wind farm, located in the South of Morocco”.⁸⁵ Enel used the same, erroneous, geographical terms of “Boujdour, Morocco” when it posted permanent employment opportunities in Boujdour in 2020.⁸⁶

The 300 MW Boujdour project is part of Morocco’s Integrated Wind Energy Programme that has begun to break ground in Western Sahara.

Presumably, work on the other wind farm in the Programme that is to be constructed in occupied Western Sahara – Tiskrad – will soon start. Masen expects the 100 MW farm to be commissioned in 2022.⁸⁷

A contract for the 200 MW Aftissat 2 wind farm was announced by General Electric Renewable Energy on 30 September 2021. The company systematically refers to the location of the park as in “Morocco”, and informs it will install 40 wind turbines. WSRW wrote to General Electric on 5 October 2021. General Electric had previously shown an interest in the tender for the Integrated Wind Energy

Programme. When confronted by WSRW, the company responded that “After checking with our colleagues, we have determined that GE is not participating in the tender that is the subject of your email”.⁸⁸

From what WSRW can calculate, Western Sahara’s share of Morocco’s currently installed wind power plants is 17.9% (255 MW out of 1427 MW in mid-2021).⁸⁹ Adding all farms currently under construction or in planning, that share could soon increase to 47.20%. The calculation is however quite challenging and complicated (see page 18).

At present, three wind farms are operational in Western Sahara: the CIMAR farm, Fom El Oued and Aftissat. The relative importance of Western Sahara for Morocco’s wind energy generation will increase as a result of the implementation of the Integrated Wind Energy programme in the territory. This public programme was conceptualised in 2010 to consist of two phases: developing the 150 MW Taza wind farm in the northeast of Morocco, and constructing five wind farms with a cumulative capacity of 850 MW. Two of the latter five farms – with a combined capacity of 400 MW – were to be built in occupied Western Sahara. A tender for all five was launched by ONEE in 2012.⁹⁰ In March 2016, a winner was announced: Siemens Wind Power in grouping with Enel Green Energy and Nareva had been awarded the \$1.2 billion contract.⁹¹ The entire project is structured under a ‘Build, Own, Operate, Transfer’ scheme (BOOT) and carried out under a public, private partnership with ONEE, the Energy Investments Company (SIE) and the King Hassan II Fund – all state-owned. ONEE will buy the generated electricity through a 20-year contract.⁹²

As part of the deal, Siemens opened a rotor blade factory for wind turbines – an investment of €100 million – in Tangier, northern Morocco in October 2017.⁹³ Unsurprisingly, the factory’s first customer was Nareva, with an order for the Aftissat wind farm in occupied Western Sahara.⁹⁴

Powering the plunder

The energy produced by the large solar and wind projects in Western Sahara is providing large industries with needed energy. This in turn, has dramatic consequences for the Saharawi people.



Nearly twice a month, a bulk vessel docks at the port of El Aaiún in occupied Western Sahara, only to depart after having loaded a cargo of phosphate rock. For over 40 years, Morocco has exported this non-renewable, strategic and valuable mineral, selling it to fertilizer producers overseas. The trade is not well received by responsible investors internationally. Several importers have ceased their purchases after learning of the controversies, and dozens of banks and pension funds have divested from companies engaged in the trade. The exports are invariably seen as violating international law and the rights of the people of the territory to manage their own resources.

Over 95% of the energy needed by the Moroccan state-owned phosphate company OCP S.A. for the exploitation of Western Sahara's phosphate reserves, is provided by the 22 Siemens windmills of the Fom El Oued park. Such a fact is asserted by the phosphate company itself.⁹⁵ The electricity generated at Fom El Oued is used for three main functions: the extraction of the phosphate rock, its transport over a 100 km long conveyor belt to the port, and seawater desalination.⁹⁶

OCP was also one of the companies named as an end-user of the Aftissat wind farm. As stated by Windhoist, the turbine erection company that constructed the farm, "The \$391m wind farm is being developed for Société Énergie Éolienne du Maroc (EEM) who will use the impressive 201.6MW of energy to supply industrial companies in Morocco".⁹⁷ WSRW wrote to Windhoist in 2017, and has not received

a response.⁹⁸ In addition to OCP, Moroccan media has linked several other companies to the project, including LafargeHolcim Maroc, Ciments du Maroc, Sonasid, Managem, Air Liquide Maroc and la SNEP, although WSRW is not certain these details are correct.⁹⁹ The 200 MW Aftissat 2 farm will, according to General Electric, also service industrial end-users.¹⁰⁰

The location of the newly planned Dakhla solar plant is also telling. The 150 MW plant will be located near the Dakhla peninsula, in an area called El Argoub, which has seen a veritable boom in agribusiness since the turn of the century. The large plantations and greenhouses that produce fruits and vegetables for export are either owned by Moroccan-French conglomerates or by the king of Morocco himself. The farmed land has continued to expand to just over 1,000 hectares today, but the aims are far bigger: in 2017 the Moroccan government announced that an additional 5,000 hectares would be made available. Creating conditions for growing produce in the desert requires massive amounts of power. Masen's decision to install a solar plant in the immediate vicinity of these companies hardly seems coincidental.¹⁰¹

Not only is the agri-industry in Dakhla power-hungry, it is at present depleting Dakhla's underground water reserves. In December 2018, the Moroccan government contracted ENGIE - in collaboration with Nareva - for developing a wind-powered desalination plant. As reported by Moroccan media, the 40 MW-driven facility is expected to mainly benefit the nearby agri-industry.¹⁰²



Wind farms

Name	Location	Country	Capacity	Commissioned	Source	Comments
Haouma	Tangiers	Morocco	50	2013	Note ¹⁰³	Law 13-09
Tanger I	Tangiers	Morocco	140	2010	Note ¹⁰³	
Tanger II	Tangiers	Morocco	70	2022	Note ¹⁰³	PEI 850 MW
Jbel Khelladi	Ksar Sghir	Morocco	120	2018	Note ¹⁰³	Law 13-09
Abdelkhalek Torr�s (Koudia Baida 1+ 2)	Tetouan	Morocco	120	2000	Note ¹⁰³	Current capacity at 54 MW, to be increased to 120 MW through repowering according to MASEN. ONEE puts capacity after repowering at 200 MW.
Oualidia I + II	Oualidia	Morocco	36	2021	Note ¹⁰⁴	
Safi	Ouelad Haddou (Safi)	Morocco	200	2021	Note ¹⁰⁴	
Lafarge	Tetouan	Morocco	32	2011	Note ¹⁰³	Law 54-14 on autoproduction
Taza	Taza	Morocco	150	2022	Note ¹⁰³	PEI phase I
Midelt	Midelt	Morocco	180	2021	Note ¹⁰³	PEI 850 MW
Amogdoul	Essaouira	Morocco	60	2007	Note ¹⁰³	
Jbel Lahdid	Essaouira	Morocco	200	2021	Note ¹⁰³	PEI 850 MW
Akhfennir 1 + 2	Tarfaya	Morocco	203	2013 - 2016	Note ¹⁰³	Law 13-09
Tarfaya	Tarfaya	Morocco	301	2014	Note ¹⁰³	
Zaitoune	Tetouan	Morocco	150		Note ¹⁰⁵	
Aferkat	Guelmim	Morocco	80		Note ¹⁰⁶	Law 13-09
CIMAR	El Aai�n	Western Sahara	5	2012	Note ¹⁰³	Law 54-14 on autoproduction
Foum El Oued	El Aai�n	Western Sahara	50	2013	Note ¹⁰³	Law 13-09
Tiskrad	El Aai�n	Western Sahara	100	2022	Note ¹⁰³	PEI 850 MW
Aftissat	Boujdour	Western Sahara	200	2018	Note ¹⁰³	Law 13-09
Boujdour	Boujdour	Western Sahara	300	2021	Note ¹⁰³	PEI 850 MW
Aftissat II	Boujdour	Western Sahara	200	2022	Note ¹⁰⁴	
Ghrad Jrad	El Aai�n	Western Sahara	75		Note ¹⁰⁷	Voltalia. Status of independent electricity producer
Harmattan Dakhla	Dakhla	Western Sahara	900	2027	Note ¹⁰⁸	Harmattan Energy (ex-Soluna). Bitcoin-mining
Dakhla desalination	Dakhla	Western Sahara	40	2021 - 2022	Note ¹⁰⁹	ENGIE.
		Morocco total	2092 MW			
		Western Sahara total	1870 MW			
		Combined	3962 MW			
		Western Sahara percentage of total	47,20%			

If all of Morocco's currently planned projects are completed in 2030, 47.2% of its total wind production capacity will lie in Western Sahara, our calculations show. This will be the result if the very large Harmattan project in Dakhla is implemented.

With regard to the solar power capacities, the calculations are a lot less clear and thus difficult to project, based on the data so far published by the Moroccan government. On one hand, it is unclear whether the large Midelt project in Morocco will go forward or not.¹⁰ On the other hand, the capacity of the two planned solar parks in Western Sahara - Noor Boujdour 2 and Noor Laayoune 2 - is not known.

The two latter parks are part of the Moroccan government's 800 MW Noor PV 2 project. Based on the information available regarding

the land allocated for the two projects in Western Sahara (see page 13), WSRW believes that their combined capacity could be 400 MW.

The Western Sahara share of Morocco's total solar plans would be anywhere between 9.7% and 32.64%, depending on whether Midelt, Noor Boujdour 2 and Noor Laayoune 2 are carried out.¹¹¹

In these tables, WSRW has primarily relied on the two Moroccan agencies overseeing wind power projects - Masen and ONEE. However, Masen and ONEE tend to present incomplete and at times contradictory information. In those cases, WSRW has relied on Masen's figures, as it is the leading agency for renewable energy projects.

The Notes referred to in the tables at these pages are referring to endnotes at the end of this report.

Solar farms

Name	Location	Country	Capacity	Type	Commissioned	Developed by	Source	Comments
Ain Beni Mathar	Ain Beni Mathar	Morocco	20	CSP with combined cycle	2010	ONEE	Note ¹¹²	
Noor Atlas	Ain Beni Mathar, Errachidia, Outat El Haj, Boulmane, Tata, Tantan, Bourafa (and Bouizakarne).	Morocco	200	PV	2020 (overdue)	ONEE	Note ¹¹³	Noor Atlas is the name used by ONEE. MASEN refers separately to 7 sites under the project: Noor Ain Beni Mathar Noor Boudnib, Noor Outat El Haj, Noor Enjil, Noor Tata, Noor Tan Tan and Noor Bouanane. ONEE lists one more site, in Bouizarkane.
Noor Tafilalet	Missour, Erfoud and Zagora	Morocco	120	PV	2019	ONEE	Note ¹¹³	Noor Tafilalet is the name used by ONEE. MASEN refers separately to the three sites under the project, with a capacity of 40 MW each: Noor Missouri, Noor Erfoud and Noor Zagora.
Noor PV II - phase I	Sidi Bennour, Kelaa Sraghna, Taroudant, Bejaad, El Hajeb et Ain Beni Mathar.	Morocco	400	PV		MASEN	Note ¹¹⁴	
Noor Argana	4 potential sites: Rhamna, Tensift, Boumalne, Chichaoua	Morocco	0			ONEE	Note ¹¹⁵	Was supposed to be tendered in 2020, for 200 MW. Since it no longer appears on ONEE's site, and was never mentioned by MASEN, WSRW considers this project to have been dropped.
Noor Midelt I	Midelt	Morocco	800	CSP + PV	2022	MASEN	Note ¹¹²	
Noor Midelt II	Midelt	Morocco	230	CSP + PV		MASEN	Note ¹¹⁶	Tender for pre-qualification launched in 2019.
Noor Ouarzazate I	Ouarzazate	Morocco	160	CSP	2016	MASEN	Note ¹¹²	
Noor Ouarzazate II	Ouarzazate	Morocco	200	CSP	2018	MASEN	Note ¹¹²	
Noor Ouarzazate III	Ouarzazate	Morocco	150	CSP	2018	MASEN	Note ¹¹²	
Noor Ouarzazate IV	Ouarzazate	Morocco	72	PV	2018	MASEN	Note ¹¹²	Part of Noor PV I
Centre Solaire Photovoltaïque	Province Tanger-Asilah	Morocco	30		2021	Green Power Morocco I S.A.	Note ¹¹³	Law 13-09
Noor Laâyoune I	El Aaiún	Western Sahara	85	PV	2018	MASEN	Note ¹¹²	Part of Noor PV I
Noor Laâyoune II	El Aaiún	Western Sahara	200?	PV			Note ¹¹²	Mentioned as part of Noor PV II - presumably phase II
Noor Boujdour I	Boujdour	Western Sahara	20	PV	2018	MASEN	Note ¹¹²	Part of Noor PV I
Noor Boujdour II	Boujdour	Western Sahara	200?	PV			Note ¹¹²	Mentioned as part of Noor PV II - presumably phase II
Noor Dakhla	El Argoub (Dakhla)	Western Sahara	150				Note ¹¹⁷	
		Morocco total	2382 MW					
		Western Sahara total (estimate)	655? MW					
		Combined	3037 MW					
		Western Sahara percentage of total (estimate)	21,57%					

How the companies argue

International companies use a combination of arguments to try and justify their operations in occupied Western Sahara. None are valid.



Siemens Gamesa claims to work for the “benefit” of the population, even though the EU Court of Justice states this aspect is irrelevant. The company says that obtaining consent is impossible. Picture shows preparation of masts in Motril, Spain, to be shipped to Western Sahara in July 2021.

1. ‘Our work is beneficial to Western Sahara.’

Siemens Gamesa states that “an improvement of energy infrastructure will bring real value to communities and people – nationally and locally”. The company adds that jobs are created for “locals” and that they support community projects ranging from planting trees to installing trash bins.¹¹⁸ “We want to stress again that the Boujdour wind project will benefit the people of Western Sahara and will contribute to the socio-economic development of this territory”, Enel Green Power says.¹¹⁹

The EU Court of Justice on 29 September 2021 specifically ruled that the question of benefits has no relevance: what matters is whether the people of Western Sahara have granted their “free and genuine” consent.¹²⁰ To pretend to do something for the benefit of the people of Western Sahara, without asking for their approval, is reminiscent of colonial times. The facilitation of settlement of Moroccans in the territory further entrenches the occupation and constitutes a war crime according to the ICC Statute.¹²¹

Enel, ACWA and ENGIE all claim to possess social impact assessments that demonstrate these alleged benefits. None of these documents are public, neither are their terms of reference. It is thus not possible for the people of the territory to comment on the content of these reports. It is also not possible to know whether the studies have taken into account that the projects themselves take place in violation of the Saharawis’ consent. All studies seem to have been made by Moroccan or international organisations, and WSRW is

not aware of a single Saharawi group advocating self-determination, including their UN recognised representation Polisario, to have ever been approached by any of the agencies producing the documents. Seemingly, all studies address the benefits to “local populations”. An impact assessment cannot substitute for the right to consent of the people of the territory.

2. ‘We do not engage in politics’

Signing contracts with the Moroccan government or state bodies for the construction of infrastructure in Western Sahara, while partnering with a company owned by the very monarchy responsible for the invasion and occupation of the territory, is a highly political act.

“As we have told you in our previous correspondence we are not able to provide answers directly related to any local and/or international political situation, since it is and remains Enel Group’s policy not to take any position on political matters”, Enel has written WSRW.¹²² In the same way, Enel is only willing to “engage with any interested stakeholders as long as this relates to the project and its benefits and not to any political issue”.¹²³ In this way, Enel is phrasing self-determination – which is a *right* of the Saharawi people – as a political issue that it does not want to address. Yet, it refers to the location of its projects as “located in the country’s south” with reference to Morocco, failing to distinguish between the territories and ignoring applicable international law.¹²⁴ That is politics.

3. ‘We do not engage in international public law’

Siemens has written WSRW that “Companies like ours, on the other hand, refrain as a matter of policy from taking positions or making judgments on such issues [international public law].” At the same time, however, Siemens Gamesa labels Western Sahara “Southern Morocco” as late as in September 2020. Such an approach is not refraining from taking a position on questions of international law, but rather ignoring international law completely.

4. ‘It does not involve physical removal of natural resources’

“Wind farms are fundamentally different from, say, mines, which extract finite resources in an irreversible way. The wind in Western Sahara, in contrast, is a renewable source of energy, and the operation of wind farms in no way diminishes it”, Siemens wrote to WSRW in October 2016.¹²⁵ Enel echoed that statement in June 2020, stating that “we also like to recall that the Boujdour project is a wind farm with no exploitation nor depletion of any non-renewable resources in that territory”.¹²⁶

First, from the perspective of public international law, Morocco has no right to exploit resources – renewable or not – inside the internationally recognised borders of Western Sahara.

Second, all currently operational wind farms are providing energy to industrial end-users in the territory that are in the business of extracting finite resources, and several future projects are reported to follow suit. As such, the renewable sector in the territory facilitates Morocco’s ongoing plunder of Western Sahara.

5. Obtaining consent is impossible

After years of asking whether Siemens had obtained the consent from the people of Western Sahara, Siemens Gamesa stated in April 2020 that their external legal assessment had confirmed “the impossibility around seeking consent of the population in an area where an administrative power exercises sovereignty *de facto*”.¹²⁷

There is a lot to unpack in that sentence.

First, the concept ‘*de facto* sovereignty’ does not exist in international law. The usage of the term ‘*de facto*’ is exactly to disassociate it from ‘*de jure*’ and does not address Morocco’s legal relationship to the land.

Second, it is not clear what is meant with ‘administrative power’. The UN has assigned each Non-Self-Governing territory with a relevant ‘administering power’. The only country bearing such an obligation in Western Sahara is Spain. The concept of a *de facto* administering power does not exist in international law: either administration is carried out legally or illegally, but never ‘*de facto*’.

Third, it is not the *population* in Western Sahara that must express consent, but the *people* of Western Sahara. There is a fundamental difference: today’s population of the territory consists overwhelmingly of Moroccan settlers, whereas the people of the territory live scattered under occupation, in refugee camps in Algeria or as residents in other countries. The difference is also explicitly spelled out by the EU Court of Justice on 29 September 2021.

Fourth, the UN has recognised Polisario as the representation of the people of Western Sahara and Polisario represents the Saharawi people in every aspect of their right to self-determination, including the economic dimension. This was also underlined by the EU court on 29 September 2021. For instance, Polisario represents Western Sahara before the UN Economic Commission for Africa.¹²⁸ Foreign companies can contact the Saharawi authorities at their administrative offices in the Saharawi refugee camps and in Western Sahara, or through their representatives in many countries, e.g. Spain or Germany.

6. The company has received an “external legal assessment”¹²⁹

Are these legal opinions public? Who wrote them? What were the terms of reference? Do the legal opinions assess the legal status of

the territory, the legality of Morocco’s presence in the territory and the right to self-determination? If such opinions are not public for the Saharawi people or third parties to analyse, in WSRW’s opinion, they have no relevance.

7. It is in accordance with applicable laws.

“The formulation of Siemens Gamesa’s corporate strategy [...] will be guided by the relevant legal framework”, stated Siemens in 2020 when asked about the company’s involvement in Morocco’s wind farms in Western Sahara.¹³⁰ The notion of “applicable legal frameworks” is a classic in companies’ responses on the matter, but they never actually explain what legal framework they are referring to. Which country’s laws? How can Moroccan law govern contracts for projects in a territory that has a separate and distinct status from Morocco, located outside of its internationally recognised borders?

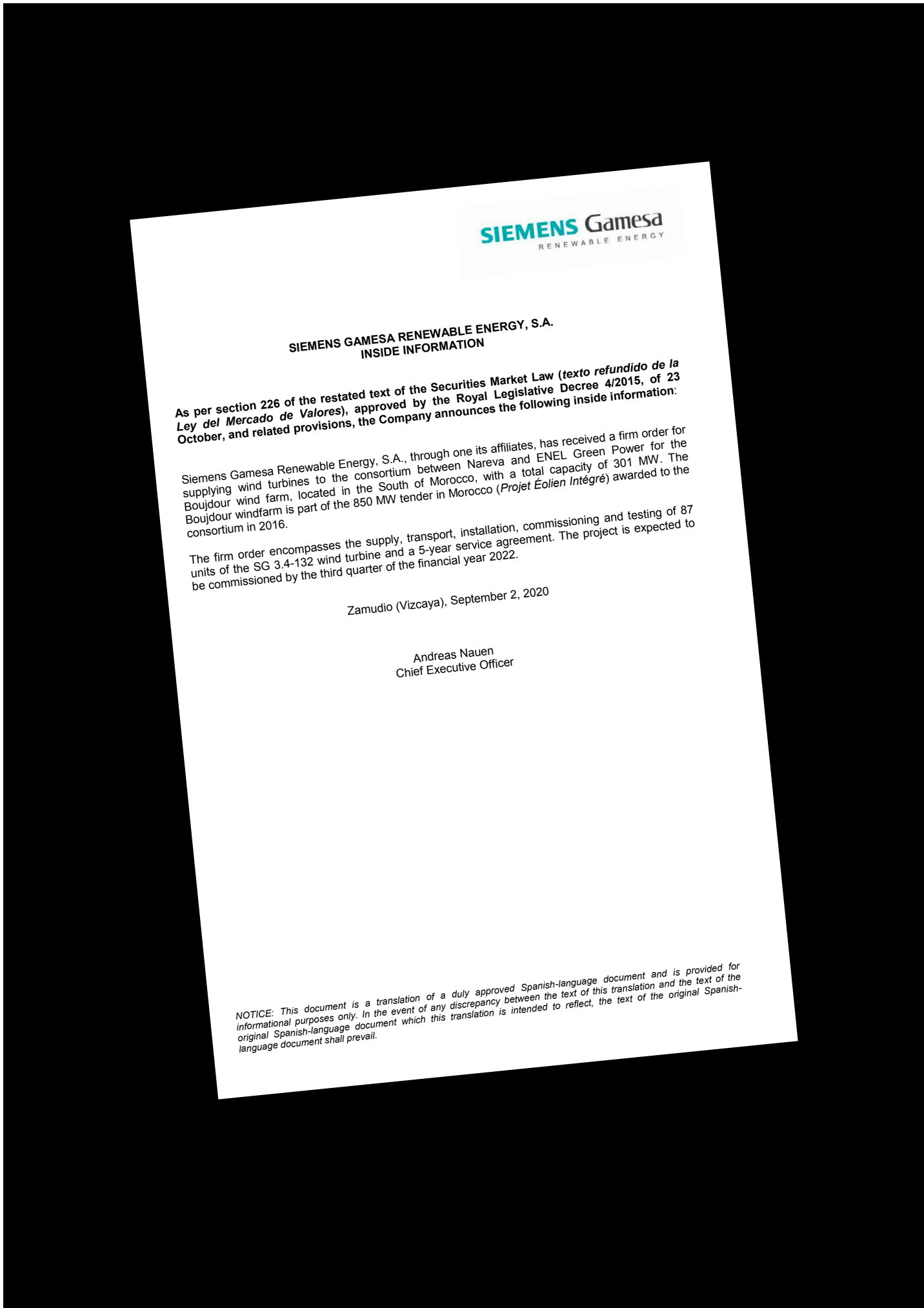
The erection and maintenance of energy infrastructure in Western Sahara can only be delivered by the Saharawi authorities in line with the rule of consent. Any permits and autorisations delivered under Moroccan law have no legal validity in Western Sahara. Siemens’ operations in the territory take place in a legal vacuum and undermines the sovereign rights of the Saharawi people over their national territory and their natural resources.

8. The rulings of the Court of Justice of the EU relate to state practice, not companies

The right to consent is universally accepted. The principle of relative effect of treaties – i.e. a treaty does not create obligations or rights for a third party without its consent – is a general principle of contract law that exists in every legal system, be it international or domestic.

9. There are no international sanctions

Companies understand the opportunities offered by the absence of corporate regulation in international law. “We are not aware of any international sanction regime that would impede such investments in Western Sahara”, Enel wrote.¹³¹ Despite the moral and legal objections linked to the energy infrastructure in Western Sahara, there are no international sanctions in place, as the EU has imposed in Crimea. However, foreign investors do not need international sanctions to respect the sovereign rights of the Saharawi people under international law.



After 8 years of letter correspondence, AGM discussions and shareholder engagement, Siemens Gamesa still avoids answering questions on the Saharawi people's right to consent. In 2020, it still refers to Western Sahara as "Southern Morocco", just like Siemens AG did when it first entered the territory in 2012.¹³²

Investors turned off

Investment in the construction of power plants generally occurs through public-private partnerships, which always involve one of the government energy agencies (usually ONEE or Masen). Investments can, however, be wholly public (usually through the ONEE) or wholly private.¹³³ In Morocco, funding for such projects comes from the ordinary government budget, the Hassan II Fund for Economic and Social Development, the Energy Efficiency Fund, the Energy Development Fund (FDE), ONEE's own funds, and the government-owned Energy Investment Corporation (SIE). Saudi Arabia and the United Arab Emirates are known donors of the FDE, a financing institution created in 2009.¹³⁴

Morocco also receives financial support from several institutions, such as the German Development Bank (KfW), African Development Bank (AfDB), European Investment Bank (EIB) and the European Union. And some of these institutions have been clear that they will not fund projects in Western Sahara. The EIB, KfW, the World Bank and the EU have explained that they will not finance Moroccan energy projects located in the territory. AfDB has never responded to letters from WSRW.

"This clear and strict separation holds true for all our financings, see also the PV I-programme where we provide financing only for the

Noor Ouarzazate project, but not for the two sites Boujdour and Laayoune", KfW wrote to WSRW.¹³⁵ Funding from the European Commission and the EIB for Morocco's renewable energy projects have also only been awarded to the sites in Morocco proper.¹³⁶

Instead, Moroccan private banks seem to have entered the scene to offer their support. *Banque Populaire Centrale* (BCP) brags about its support to Fom El Oued "in the south" of Morocco in its Corporate Social Responsibility report. BCME has also allocated funds. The Aftissat farm with a price tag estimated at 4 billion Moroccan Dirham (around €370 million) was reportedly financed by Nareva's own funds and with loans provided by Moroccan banks Attijariwafa and BCP.¹³⁷ The *Banque de Financement et de l'Investissement* (BFI) reportedly also "unlocked" 88 million Moroccan Dirham for Aftissat.¹³⁸

The Noor PV I programme, constructing two solar plants in occupied Western Sahara, was financed through Masen's issuance of green bonds to the tune of 1.15 billion Dirham USD118 million), at the advice of law firm Norton Rose Fulbright, a company previously engaged to defend phosphate exports from the territory.¹³⁹ The bonds are underwritten by Al Barid Bank, Attijariwafa Bank, public pension fund *Caisse Marocaine de Retraite* and reinsurance company *Société Centrale de Réassurance*.¹⁴⁰



The gates to the Noor Boujdour solar park in occupied Western Sahara.

King of the mill

“From an ownership standpoint, the very existence of SNI is a challenge to Morocco’s Constitution, of which article 36 forbids “conflicts of interest [and] all practices contrary to the principles of fair and free competition.” In a country where the king is the supreme administrative and judiciary authority, are his corporations really held to the same standards as the other ones?”

Le Monde, 10 February 2015¹⁴¹



The king of Morocco is not only the political, judicial, military and religious leader of the country, he is also a businessman, controlling companies that operate in large-scale and lucrative markets. During his reign, the King of the Poor – a title bestowed on Mohammed VI by the French press when he took power in 1999 – has accumulated a massive wealth. The problematic conflicting role of the royal family – both regulator and owner – is visible in numerous business sectors. Including the renewable energy sector.

The royal family is the majority owner of Al Mada (“outlook” in Arabic), formerly known as the *Société Nationale d’Investissement*, or SNI, and often referred to as the royal holding.¹⁴² Al Mada is the largest stakeholder in the Moroccan economy, and fully owns the renewable energy company Nareva.

Near all wind parks currently operational and under construction in Western Sahara are in the portfolio of the king’s company Nareva.

The king himself appoints the heads of the public agencies that manage the renewable energy projects, and that – crucially – issue tenders and contracts, as well as personally chairs high-level meetings on the topic.¹⁴³

The king sets the targets for the renewable sector and decrees legislation regarding renewable projects.

A leaked cable from the US embassy in Rabat, dated December 2009, comments on the far-reaching commercial interest and influence of the king and his advisors in the Moroccan economy, an observation that still applies. A former US Ambassador described it as “the appalling greed of those close to King Mohammed VI”, a phenomenon that “seriously undermines the good governance that the Moroccan government is working hard to promote”.¹⁴⁴

The royal family controls sectors such as finance, energy, agriculture, property and telecom. Most of the royal wealth is generated through former SNI, currently Al Mada, whose revenues have at times equalled as much as 8% of Morocco’s annual GDP.¹⁴⁵ Maximising profits for its royal shareholders is hard to reconcile with increasing purchasing power of ordinary citizens from an economic point of view. The result is a rather dysfunctional market economy, where money trickles up from the people to the king.

Nareva is born out of this structure. The company was created by *Omnium Nord Africaine Group* (ONA), an industrial and financial group owned by the king to manage its activities in the energy and environmental sector. SNI absorbed Nareva in 2010.¹⁴⁶ Ever since Nareva’s creation in 2006, the conquest of the internal renewable energy market has been a constant priority for SNI. “Our war chest will be devoted to our developing societies on telecommunication and renewable energy”, the SNI president said.¹⁴⁷

Nareva today owns a substantial number of the wind farms in Morocco proper, but also all operational and planned wind farms in Western Sahara, with the exceptions of the very small CIMAR plant and the planned gigantic Harmattan project. Through Nareva, the Moroccan king thus owns practically all current and planned wind farms in the territory he holds under military occupation, in violation of international law.

The king has a major influence in the two public agencies in charge of the country’s energy market:

The king appoints the Director General of ONEE: the sole Moroccan operator of electricity supply and, up to 2015 the exclusive launcher of tenders and contracts. Today, Nareva is run by Saïd El Hadi, a former executive of Al Mada, and former CEO of Sonasid: a steel manufacturer company partially owned by Al Mada,¹⁴⁸ and one of the end-users of the energy generated by the Aftissat wind farm.

The king also appoints the head of Masen – itself created by royal decree. Since the inception of Masen in 2009, that position has belonged to Mustapha Bakkoury, considered an eminent member of Morocco’s political elite. Bakkoury has also served as

the Secretary-General of the Party of Authenticity and Modernity from 2012 to 2015 – a party founded in 2008 by his close friend Fouad El Himma, advisor to the king and one of the most influential men in the kingdom.¹⁴⁹ However, in late 2020, Bakkoury took a fall from grace, as the king – while chairing a high-level meeting on renewable energy at the Palace – blamed him for renewable projects not being implemented fast enough.¹⁵⁰

Masen, originally dubbed the Moroccan Agency for Solar Energy, was created by royal decree to lead solar projects. In 2015, Mohammed VI issued a royal instruction to make Masen the central body for all renewable energy projects: the next year, Masen’s name was changed to Moroccan Agency for Sustainable Energy, as part of a profound restructuring of the sector.¹⁵¹ Masen’s mission, as advertised on its own webpage, notes that it is in charge, together with ONEE, of “implementing the Royal vision for renewable energy.”¹⁵²

“This is an important turning point for the Kingdom, which is on the way to become one of the most committed emerging countries to the development of wind and solar energy.”

General Electric Renewable Energy, 30.09.2021, upon the announcement of a contract with the Moroccan King’s company Nareva in occupied Western Sahara.

Silent UN climate body

Morocco includes projects in Western Sahara in its reporting under the Paris Agreement. The UN body UNFCCC does seemingly nothing to prevent it.



Like other parties to the Paris Agreement, Morocco has set its Nationally Determined Contributions (NDC): a national plan highlighting climate actions, policies and measures governments aim to implement in response to climate change. However, in its submissions to the registry that is maintained by the UNFCCC secretariat, Morocco has included its projects in occupied Western Sahara. The reports are available at the UNFCCC website.¹⁵³

Morocco's first NDC submission of 2016 relies heavily on the "National Wind Plan 2020" and the "National Solar Plan 2020". Combined, these two programmes alone account for 40% of Morocco's envisioned emission-reduction through the listed unconditional actions. Both these programmes, as initially conceptualised, include a significant share of projects in Western Sahara. The same applies to the solar and wind plans towards the 2030 horizon, as included in Morocco's submission. In addition, several other listed "national" actions are highly likely also being deployed in part in Western Sahara, such as importing supposedly "cleaner" LPG to replace other fossil fuels, make industrial firms more energy efficient and allow for privately owned wind farms. In 2021, Morocco submitted an update to its 2016 NDC that specifically includes the 40 MW Dakhla wind-powered desalination farm.¹⁵⁴

As implied through the adjective 'National', an NDC is to correspond to a national territory – that's where emissions count. In October 2017, WSRW asked the UNFCCC whether it was acceptable for a State Party to report on actions taken outside of its national territory.

In August 2018 the UNFCCC responded that "the secretariat does not have a mandate to review or assess content of NDCs submitted by Parties". Yet on the UNFCCC's website the express purpose of the secretariat is described as "reviewing climate change information reported by Parties".¹⁵⁵

WSRW asked UNFCCC to clarify what its "review" is to address and whether it accepts that State Parties report progress toward their NDCs resulting from actions that are implemented outside of their national territory, as well as inside a Non-Self-Governing Territory without consent of the people of that territory.¹⁵⁶ In July 2020, the Deputy Executive Secretary of the UNFCCC responded again that "the secretariat continues to not have a mandate to assess the content of Nationally Determined Contributions submitted by Parties".¹⁵⁷

There are two grave consequences to the UNFCCC secretariat's apparent lack of concern for Morocco's dishonest reporting.

First, Morocco is allowed to artificially inflate its climate ambitions, which would be less impressive if it were to report only on actions it would undertake on a national level – as every other State Party to the UNFCCC is expected to do. The image of a climate champion is obtained, at least in part, through rolling out projects that serve its colonial ambitions in the territory it brutally occupies.

At the moment, Morocco is regarded as one of seven countries whose NDCs are considered "almost sufficient" to reach the 1.5°C Paris objective and one of only 17 countries that have submitted an NDC with higher ambitions in 2021 than in 2016.¹⁵⁸ How would Morocco score if it were to report only its contributions on a national level?

Second, Morocco has without impediment used the UN climate meetings – the Conference of the Parties to the UNFCCC (COP) – as a platform to showcase its energy infrastructure projects on occupied land. The invasion of Western Sahara was part of the opening speech of COP22 hosted by Morocco in Marrakech, coming a day after Morocco's national holiday in celebration of that very invasion.¹⁵⁹ The official COP22 twitter account and COP22 website – both controlled by the Moroccan government as organisers of COP22 – were rife with Moroccan propaganda on Western Sahara. The UN Secretary-General himself asked UNFCCC to intervene regarding the erroneous map depicting Western Sahara as part of Morocco.¹⁶⁰ Morocco also introduced a COP22 label for climate-friendly projects, which were

accorded by the Comité de pilotage de la COP22, whose members have been appointed by the king of Morocco.¹⁶¹ Several projects in occupied Western Sahara today bear the COP22 label – creating the appearance that such projects have received some form of approval by the UNFCCC. The secretariat did not respond to WSRW's question as to whether it accepts Morocco's use of its name to accord a "COP22" label to projects in occupied Western Sahara. Subsequent COP meetings have provided Morocco with welcome opportunities to advertise its renewable projects, including those in occupied Western Sahara. Morocco is reportedly keen to attract investments at COP26 in Glasgow in 2021.¹⁶²

It is not the first time that the UNFCCC secretariat has been drawn into greenwashing the brutal occupation. In 2010, the Moroccan company Nareva, wholly owned by the Moroccan king himself, had requested carbon credits from the UN Clean Development Mechanism (CDM) for the Foum El Oued wind farm.¹⁶³ However, the certifying company DNV turned down the proposal before it had been presented to CDM for approval. A DNV spokesperson stated that the firm originally believed that the wind farm was to be built in southern Morocco, but after a while began to suspect that this was not the case. "It was therefore fairly simple on our part. In January [2012] we disclosed that we would be negative to the project", the spokesperson told the media.¹⁶⁴

UNFCCC's selective blindness regarding Morocco's renewable energy projects in occupied Western Sahara seems to extend to other UN agencies. Since 2018, UNESCWA, the UN Economic and Social Mission for Western Asia, has published two reports that extensively cover Morocco's renewable sector, ignoring the fact that a number of projects mentioned in the reports are located in Western Sahara.¹⁶⁵ WSRW reached out to UNESCWA in 2018 and 2020, but the UN organisation never responded.¹⁶⁶ Meanwhile, the UN Global Compact is turning a blind eye to the creative reporting of its participants, obscuring their activities in occupied Western Sahara. Siemens Energy's progress report enlists all countries in the world where the company has installed wind turbines, but fails to mention Western Sahara.¹⁶⁷ Enel started replacing "Western Sahara" with specific location names, such as Boujdour, in 2018.¹⁶⁸ The only time the UN Global Compact has seemingly intervened in the matter, was when Vigeo Eiris had to correct its progress report in 2018. In it, the company had claimed that "Vigéo Eiris were not found to have breached any of the 10 Principles of the United Nations Global Compact". This incorrect statement was amended after a month, following a WSRW complaint.¹⁶⁹

Morocco expels Vice-President

On 6 November 2016, Suelma Beirouk was detained by the Moroccan police as she was leaving Marrakech airport and to attend the COP22 conference in that city. Beirouk, herself a Saharawi diplomat from the Western Sahara republic, had been invited to attend the conference in her capacity as Vice-President of the Pan-African Parliament, having served as a member of the preparatory committee for the previous conference in Paris.

"They prevented me from entering the COP, they did not allow me", Beirouk said.

"It is not Morocco who gives the accreditations, it's the UN. She was not accredited", said Morocco's ambassador to the UN. A day after his statement, it was revealed that Beirouk was in fact accredited by the UN.¹⁷⁰

Beirouk was reportedly held by Moroccan police for 75 hours without food or water, before being expelled from the country. The UNFCCC secretariat stated it was seeking clarifications from the Moroccan authorities.¹⁷¹ But it never revisited the issue.

Neighbourly connections

● **Morocco-UK Interconnection (expected)**
There are currently plans being contemplated to lay subsea cables from Morocco to the UK. The idea is to take in 10,000 MW renewable energy to the UK from renewable energy projects.¹⁷⁵
The UK company Xlinks has confirmed to WSRW that neither the energy production nor the cables would be in Western Sahara.¹⁷⁶

● **Morocco-Portugal Interconnection (expected)**
There is presently a cooperation on the construction of a 1,000 MW undersea cable from Morocco to Portugal. “Both governments are strongly committed to this project”, the Portuguese Secretary of State for Energy said. The 250 km-long cable will come with a price tag of €700 million, reportedly to be financed by European and African funds. The cable is expected to be operational before 2030.¹⁷³

● **Morocco-Spain Interconnection**
The first undersea interconnection cable between Morocco and Spain was laid in 1998, while the second was commissioned in the summer of 2016. Combined they have an exchange capacity of 1,400 MW. In early 2019, the governments of Spain and Morocco signed a memorandum of understanding to build a third 700 MW cable. In charge of the project are Spain’s grid operator *Red Electrica de España* (REE) and ONEE. “The construction of the third link between Spain and Morocco ... will allow the integration of renewable

energy, mainly photovoltaic, into the European system,” said REE, adding that the photovoltaic power would come from Morocco’s “ambitious development plan of solar energy ... which consequently will reduce the marginal price of electricity in the Spanish market”. Spain and Morocco have also signed a second collaboration agreement “to establish a strategic partnership on energy, whose objectives will be focused on the integration of networks and energy markets, the development of renewable energy and energy efficiency”.¹⁸²

● **Morocco-Algeria Interconnection**
Morocco’s first international connector was commissioned in 1988 with Algeria. The two 225 kV lines were extended by a 400 kV line in 2008. Current exchange capacity is at 1,500 MW.

Western Sahara to Morocco
There is today a 400 kV transmission line connecting Western Sahara to Morocco. But that is set to increase.
In February 2021, ONEE’s director-general Abderrahim El Hafidi announced an investment of 2 billion Dirham for strengthening the electricity grid in “the southern provinces”. “ONEE launched this project with the objective of ensuring the evacuation of renewable energies under development in these provinces, with an additional capacity of 800 MW”, El Hafidi told the media.¹⁷⁷

The project consists of constructing a second 400 kV connection between Agadir and El Aaiún, requiring, among other things, extending the Hagounia substation commissioned in 2016 just south of the border between Morocco and Western Sahara”.¹⁷⁸ Work is carried out in two phases, which will be completed during the first half of 2023. The contract for the construction of a 127-km extra high voltage line connecting El Aaiún to Hagounia was awarded to the French company VINCI and its Moroccan partner Medicable.¹⁷⁹

ONEE’s tenders for the construction of the additional transmission lines, connecting Hagounia to Agadir (via Tan Tan), are still open.

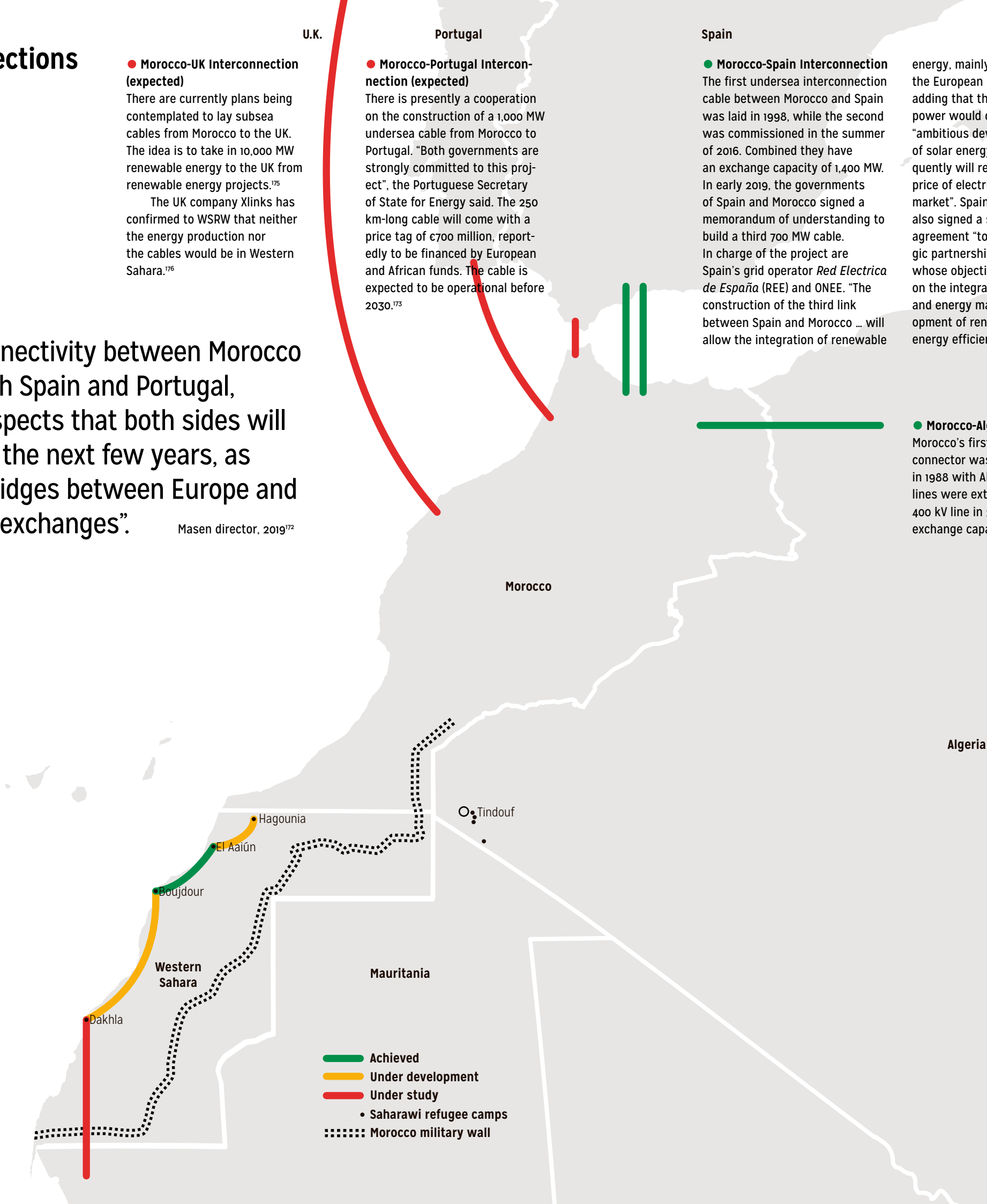
The project has received financial backing from the African Development Bank. “Concretely, the work related to the strengthening and securing of the Moroccan electricity grid aims to increase the evacuation capacity of renewable energies from production centers (photovoltaic power plants, wind farms) that are developed or under construction onto large distribution centers. In addition, these projects also aim to develop regional energy exchanges, strengthening the country’s electricity supply security”, ONEE’s submission to AfDB reads, specifically referring to the Noor PV II programme and the future wind farms “in the south”.¹⁸⁰

WSRW sent a letter to the AfDB on 3 May 2021, asking whether the Bank was aware of the full scope of the project, namely: connecting the renewable energy plants in occupied Western Sahara to Morocco’s electricity grid. AfDB has not responded.¹⁸¹

“Increasing grid connectivity between Morocco and Europe, through Spain and Portugal, is one of the key aspects that both sides will need to work on in the next few years, as these constitute bridges between Europe and Africa in electricity exchanges”.

Masen director, 2019¹⁷²

● **Morocco-Mauritania Interconnection (expected)**
The construction of transmission lines from Dakhla to Mauritania are under study. A first step in that direction would require Dakhla’s connection to the rest of the Moroccan “national” grid.
“It should also be noted that the development of this project will subsequently enable the creation of new interconnections with neighboring countries and participate in regional integration”, ONEE’s director-general stated.¹⁷⁴



Plugging into the EU grid

There is a real risk that the EU in the future will depend on Moroccan energy projects in occupied Western Sahara to fill its own energy needs.



In June 2021, the EU and Morocco announced they had reached a Green Partnership, with the aim of strengthening their cooperation in the fight against climate change and advancing their energy transition. The first results of the Partnership will be announced at COP26.¹⁸³

It is the Union's first such Partnership, considered part and parcel of the EU Green Deal, the Union's roadmap to becoming climate neutral by 2050. Upon announcing the Green Deal, the EU Commission stated that its goals would be impossible to achieve alone, and that the Union will need to use its diplomacy, expertise and finances to establish climate partnerships, including in the EU's Southern Neighbourhood.¹⁸⁴ Apart from reaching its climate objectives, the partnership-approach would also help in drawing partner countries out of the influence sphere of competitor powers. North Africa is in this context considered an area of strategic importance for China, where its influence could conflict with EU's climate goals and impede political partnerships in the region. Importantly, the EU's climate partnerships are considered to generate economic development and contribute to decreasing the migration pressure on Europe..

Morocco has been in a pole-position for such a partnership, well underway in implementing its own ambitious renewable energy strategy and arguably the North African country with strongest ties to Europe. The 2019 EU-Morocco Association Council had already identified two fields for action under the header of "Euro-Moroccan partnership for shared prosperity": cooperation on climate change, and on migration.¹⁸⁵

In 2021, the EU Commission raised its interim target on the shares of renewables in its 2030 energy consumption from 32% to 40%.¹⁸⁶ The idea that the Union ought to tap into external sources to further decarbonize its energy supply has been around for some years and may very well become part of the EU's climate partnership with Morocco.

Since the turn of the century, there have been – unsuccessful – attempts to turn the Sahara into Europe's solar battery. The Desertec project, a German-industry backed plan to source 15% of Europe's energy from North Africa by 2050, collapsed by 2014. One of Desertec's founding partners was Siemens. The Mediterranean Solar Plan, a crown jewel of the intergovernmental Union for the Mediterranean, envisioning closer energy cooperation across the Mediterranean, was essentially dissolved in 2013 due to lack of political support.¹⁸⁷

But the ambition of exporting desert energy to Europe is still on the agendas on both sides of the Strait of Gibraltar.

At the COP22 in Marrakech in 2016, France, Germany, Portugal, Spain and Morocco signed the Sustainable Electricity Trade (SET) Roadmap, which aims to identify barriers to trade in renewable electricity between the five signatory countries and suggest ways to overcome these barriers. The goal is the eventual exchange of renewable electricity between Morocco and the four EU countries.¹⁸⁸ Upon witnessing the signature of the Roadmap, EU Commissioner for Climate Action and Energy Miguel Arias Cañete, proudly declared the possibilities and called it "an important step".¹⁸⁹

In response to a Parliamentary Question as to how the EU would ensure that Member States' renewable energy trading with Morocco would not include energy generated in Western Sahara, the same Commissioner responded that "The Declaration will be implemented taking due account of the separate and distinct status of the territory of Western Sahara under international law".¹⁹⁰

A year later, in 2018, the five countries, in presence of the European Commission and the Union for the Mediterranean, signed another joint declaration to progressively open their renewable electricity markets to each other, facilitating cross-border trade from producers of renewable electricity to corporate consumers, under power purchase agreements. The initiative is directed by a Steering Committee including Ministries from each signatory country and observers, with Masen acting as Secretariat.¹⁹¹

In 2020, the EU adopted a new strategy for hydrogen, a

carbon-neutral gas that some Member States seek to import in replacement of fossil fuels.¹⁹² Here as well, cooperation with partner countries is considered key, and Morocco is again well placed given its proximity, its renewable energy plants and the fact that it is already developing a hydrogen roadmap focussed on the EU.¹⁹³ In fact, Morocco has already signed hydrogen partnership deals with Germany and Portugal that can serve as a precedent for extending green hydrogen cooperation.¹⁹⁴

If Morocco were to become an energy supplier of the EU, there is a risk that the Union would in fact be importing energy generated in Western Sahara. And the potential of Western Sahara is crucial to Morocco's ambition of exporting to the EU. Referring to the wind farm plans in Western Sahara, a Moroccan think tank concluded in 2020 that "a surplus of more than 1,000 MW can be connected to the national grid, either from Tarfaya, Boujdour, Dakhla or Lâayoune. This surplus will then be able to meet the other needs of the Kingdom's provinces and/or be exported to Southern Europe, only 14 kilometres from Tangier".¹⁹⁵

The question remains whether Morocco can be regarded as a secure provider. There is a high risk that the EU would be at the mercy of Morocco's capricious whims. In the aftermath of the 2016 CJEU decision concluding Morocco's claims to Western Sahara are untenable, Morocco froze its relations with the Union, including its cooperation in several multi-million Euro programmes such as counter-terrorism exercises.¹⁹⁶

Some are more occupied than others

In 2017 four Siemens' gas turbines were exported from Russia and installed in Crimea – contrary to EU sanctions. In response, the EU Council imposed sanctions on three Russian individuals, including Russia's deputy energy minister and the Russian company that contracted Siemens, together with a Siemens subsidiary, which installed the turbines.¹⁹⁷

The EU Council stated that the action "undermined the EU's non-recognition policy of the illegal annexation of Crimea and Sevastopol" and "supported their separation from Ukraine".¹⁹⁸

The contrast with the EU's inaction on Western Sahara is striking.

For Crimea, the EU External Action Service, the EU's Foreign Affairs Department, was quick to introduce a policy of differentiation consisting of a broad range of measures such as asset freezes, travel bans, and economic sanctions.¹⁹⁹ To date, the EU "remains steadfast in its commitment to Ukraine's sovereignty and territorial integrity" and "reiterates that it does not recognise and continues to condemn this violation of international law" and "illegal annexation".²⁰⁰

Meanwhile the EU lumps the area of Western Sahara that is under illegal Moroccan occupation into its bilateral agreements with Morocco – in disregard of rulings of the EU Court of Justice concluding that Morocco has no sovereignty over nor an international mandate to administer the territory.

A policy paper published by the European Parliament's Policy Department in 2015 pointed out the similarities between Russia's annexation of Crimea and Morocco's annexation of parts of Western Sahara. "While each situation has its own characteristics, the international law governing them is the same. For keeping the European Union's credibility, it is crucial, and therefore necessary, to treat like cases alike", the report reads.²⁰¹

Questions in the European Parliament why the policy of differentiation applied to Crimea were not also applied to Western Sahara, were not responded to by the EU Commission.²⁰²

Conflict bitcoins

Investors are planning to build a gigantic wind farm in Dakhla to produce digital currency. It would be as big as all other wind projects in Western Sahara so far, combined.



Bitcoin mining: the digital equivalent of a miner striking gold while digging in the ground. Bitcoin mining is performed by high-powered computers that solve complex computational math problems: the uncrackable “blockchains” or digital transaction records that underpin the currency. The colossal computing capacity requires a lot of electricity and is mostly done with huge machines in aircraft hangar-sized warehouses in the cooler climates of Iceland, Canada, northern China and Russia, where it costs less to diffuse the heat generated. Not exactly a practice you would expect in the soaring heat of Western Sahara – or in Morocco, which outlawed cryptocurrencies in 2017.²⁰³

However, in 2018, private equity firm Brookstone Partners announced that it was raising cash to develop the first phase of a 900 MW wind farm to fuel cryptocurrency mining in Dakhla – a location, according to Brookstone, that has potential for mining cryptocurrencies and managing data using clean energy. Bitcoin’s biggest problem is indeed its enormous carbon footprint. The global annual footprint of Bitcoin is now at 76.26 megatonnes of carbon dioxide, comparable to the total emissions of Greece.²⁰⁴

Earlier in 2018, Brookstone had founded the company Harmattan Energy (formerly Soluna Technologies) to develop the wind farm. The latter stated it had obtained the “exclusive rights” to develop the wind farm through its acquisition of A.M. Wind, which had started developing the site in 2009.²⁰⁵ The former parent company of A.M. Wind, German wind energy developer Altus AG, has confirmed to WSRW that it has sold its Moroccan subsidiary to Harmattan in 2018. The company claims to no longer be involved in the Dakhla project.²⁰⁶

Now aware of the controversial location of the planned wind farm, Harmattan published a defence of its choice of location, entitled ‘A Note on Dakhla, Morocco’, in October 2018.²⁰⁷ The paper is marred with historical and factual fallacies and without reference to the Saharawi people’s right to self-determination. WSRW’s rebuttal and questions about the paper were not responded to.²⁰⁸ Nor was WSRW’s letter to Brookstone.²⁰⁹

The Oslo-based global certification company DNV (formerly DNV GL) which had an assignment for the project, withdrew from the project upon it being revealed in Norway. In 2020, DNV issued a press release stating that it “will not enter into new contracts for business in Western Sahara” and that “ongoing projects will be ended within a few months, the last wind measure assessment by the end of 2021”.²¹⁰

In early 2020, Moroccan media reported that Harmattan had received a green light from the Moroccan authorities to break ground for the first phase of its envisioned mastodon wind farm. Harmattan has reportedly obtained additional permits, for which it had retained the Moroccan advisory company Afrique Advisors.²¹¹ Siemens Gamesa and Vestas confirmed to WSRW they have been consulted by Harmattan regarding a single turnkey engineering, procurement and installation contract for the project. Siemens Gamesa stated it had not yet decided to take part in any bid, whereas Vestas answered in vague terms that it “follows local and international law” without clarifying further. Other manufacturers of wind turbines that Harmattan claims to have consulted, General Electric and Goldwind, have not replied to WSRW’s query.²¹²

Data filed by the publicly traded Mechanical Technology Inc, another Brookstone affiliate, in 2020, confirm that the Moroccan Ministry for Energy approved the Harmattan Dakhla project in 2019. In the process, the company relied on assistance from the law firm DLA Piper, and lobbying of a current Board member, former US Ambassador to Morocco Dwight L Bush.²¹³

Mott MacDonald, a global engineering firm, provided technical consultancy from 2018 to 2019.²¹⁴ Brookstone Partners stated that Mott MacDonald had audited the project as a viable one.²¹⁵

In late 2020, Harmattan announced the financial mobilisation

for the start of construction work on phase one – 36 MW – in 2021. According to the company, this stage required an investment of \$100 million. The future 900 MW wind farm, over 10,000 hectares, will be built in several phases over a period of 6 years and has a reported price tag of US \$ 2.5 billion.²¹⁶ The project will be developed in a modular fashion called Pods, with each Pod comprising 12 MW of power generation, a storage system, and a 6-MW cryptocurrency mining or blockchain computing center.²¹⁷

Coming up next?

In addition to the current onshore wind and solar projects, Morocco is also looking into tapping the potential of offshore wind and geothermal energy.



Geothermal energy

In 2020, the Moroccan Ministry of Energy and Mines hosted a workshop on the potential of geothermal energy in Morocco. The workshop revealed the results of a research programme that ONHYM had kicked off in 2012, with the purpose of identifying the most promising sites for geothermal energy production. Attendees, which included the country's leading agencies in the field of renewable energy, such as Masen, ONEE and ONHYM, learned that there were two areas with high potential: the northeast of Morocco proper, and the "Tarfaya-Laayoune-Dakhla basins in southern Morocco" – the latter in reality corresponding to the area of Western Sahara that is under Morocco's occupation. A technical committee was set up to develop a roadmap outlining the potential of geothermal energy in Morocco in several sectors.²¹⁸

Later in 2020, Morocco's Economic, Social and Environmental Council described geothermal resources as "underexplored". It noted that "the coastal basins in the Southern Provinces correspond to a vast geothermal field, where the first works made it possible to highlight five geothermal zones: Bir Gandouz, Dakhla – El Argoub, Boujdour – Lamsid, El Marsa – Laâyoune – Tarfaya and Essemara. This potential can be used in the areas of heating of premises and / or greenhouses, aquaculture and balneotherapy. The Boujdour – Lamsid area is the most interesting; it could, according to the first estimates, be used for the production of electricity via binary cycle power plants."²¹⁹

Morocco's interest in the geothermal potential lies in dual use: for the production of electricity, and also for its direct, practical use in a number of sectors, such as agriculture, tourism and aquaculture.²²⁰ In agriculture, geothermal energy is commonly used for greenhouse heating, while soil heating is used for extending the growing season. Another common application of geothermal energy is aquaculture pond heating, to obtain optimal temperatures for fish farming – thus increasing production.²²¹

Over the last decade, Morocco has stepped up the expansion of agriculture and aquaculture in occupied Western Sahara. Undoubtedly, these sectors will become more efficient and profitable if the geothermal potential of the territory is tapped into.

In 2019, Gesto Energy, a Portuguese company focused on energy consulting and renewable energy project development, announced on its website that it had been selected to "identify and study areas with geothermal potential in the provinces of south of Morocco in an area of more than 140,000 km², corresponding to Moroccan Sahara". Maps on the firm's web page leave little doubt: the area matching the study spans practically the entire part of Western Sahara presently under Moroccan military control.

Gesto's contract pertaining to the study was signed with ONHYM, Morocco's National Office for Petroleum and Mines. In December 2019, the company reported that its team had collected samples of water and gas in Western Sahara, referring to the location as southern Morocco.

Gesto Energy holds interests in countries like East Timor, Angola and South Africa, which are all known supporters of the Saharawi right to self-determination. WSRW has asked Gesto to provide data that might have been collected to the Saharawi authorities and to the UN.²²² The company never responded.

The offshore potential

A World Bank 2020 publication has underscored the potential of offshore wind energy in Western Sahara relative to Morocco. Assessing the options for offshore turbines with floating and fixed foundations, Morocco's own capacity was estimated at an already impressive 200,000 MW. But that increased dramatically with the addition of Western Sahara: 538,000 MW.²²³ Following an exchange with WSRW, the World Bank removed all maps and documents relating to the study which had lumped Western Sahara in with Morocco.²²⁴

Recommendations

To companies currently engaged in or planning to engage in projects in Western Sahara, most particularly Siemens Gamesa, Enel Group, Voltalia SA, ENGIE SA, General Electric, Harmattan Energy and ACWA Power:

- To immediately terminate current projects and cancel further plans in the territory. No energy project in occupied Western Sahara, no matter how “sustainable”, should take place without the consent of the people of the territory. Such activity contributes to the violation of international law, entrenches the Moroccan occupation and further hampers UN-led efforts to reach a solution to the conflict.
- Taking into account the EU Taxonomy Regulation, to stop referring to its projects in Western Sahara as “sustainable”. All energy projects, in that they have been imposed on the territory by the neighboring country of Morocco in disregard to the right of self-determination of the people of Western Sahara, constitute a violation of the Saharawi people’s human rights.
- To immediately publish all produced risk assessments, legal opinions and social impact assessments, including their terms of reference, pertaining to projects in Western Sahara.
- To inform staff working on renewable projects in Western Sahara about the legal, insurance and personal risks related to working in the territory via a null and void contract.

To shareholders of the involved companies:

- To engage with all private companies that supply energy infrastructure to Western Sahara and request that further engagements be immediately halted, as they are not taking place in accordance with the right to self-determination of the Saharawi people.

- Based on the lack of progress in their position on the Saharawi people’s right to self-determination, despite a decade of engagement from civil society and shareholders, to immediately exclude Siemens Energy, Siemens Gamesa and Enel SpA from portfolios and investment universes.
- To immediately initiate engagement processes with the more recently involved companies ENGIE, Voltalia and General Electric.
- To request that all social impact assessments and legal opinions, including their terms of reference, be immediately published.
- To avoid qualifying companies as ‘sustainable’ or ‘green’ if they fail to respect basic social standards or human rights, in line with the EU Taxonomy Regulation. Companies ignoring the Saharawi people’s right to self-determination should not be considered green or sustainable.

To audit companies:

- To reject any verification, validation or certification of projects located in the occupied territory of Western Sahara, unless the express and prior consent of the people of the territory through their UN recognised representation Polisario, can be proven.

To companies carrying out social impact assessments:

- To reject undertaking such studies, as they lend legitimacy to an illegal occupation. As long as the Saharawi people have not consented to an operation or a related study on their land, it is grossly unethical to undertake a social impact assessment commissioned by a company that has disregarded the Saharawi people’s fundamental rights.
- To immediately publish all social impact assessments already undertaken, as well as their terms of reference.

To law firms providing legal assessments to involved companies:

- To immediately publish all legal opinions already written, as well as their terms of reference.
- To refuse to enter into agreements concerning operations in Western Sahara under Moroccan contracts, unless the express and prior consent of the people of the territory through its UN recognised representative body, Polisario, can be proven.

To Climate Bonds Initiative:

- To establish a routine securing that it will only facilitate funding of projects that are legal and set up in accordance with basic international law and human rights.
- To not facilitate further Moroccan projects in occupied Western Sahara and to double-check the actual geographical location of all future verifiers’ reports for projects initiated by governments that militarily occupy other territories in violation of the UN Charter.
- To remove or rectify the current erroneous reporting by Masen on its website, which is not in accordance with the position of the UN.
- To reply to requests from civil society.

To the Government of Morocco:

- To comply with the terms of the 1991 UN-administered ceasefire agreement and allow for the organisation of a referendum on the status of Western Sahara, including an option for independence, so that the people of the territory can exercise their right to self-determination.
- To comply with International Humanitarian Law and refrain from undertaking infrastructure projects in a territory under occupation, without the consent of the Saharawi people.
- To allow international observers - including the UN and international climate and human rights organizations - to travel to the occupied territory independently and unimpeded.

To the United Nations/UNFCCC:

- To employ a consistent approach vis-à-vis the territory, taking into account the UN’s categorisation and treatment of Western Sahara as a Non-Self-Governing Territory without a legal administration in place, over which Morocco holds neither sovereignty nor an international mandate. WSRW recommends that the UNFCCC secretariat unequivocally adhere to the UN position on Western Sahara and reject Morocco’s reporting on projects in the territory as part of its NDCs under the Paris Agreement. The UNFCCC should ensure that Morocco does not market any projects in Western Sahara at the COPs.
- To help Saharawis participate in and contribute to international climate talks and processes.
- To, as long as climate projects in the territory of Western Sahara are reported on, grant Polisario the same access as Morocco to UN climate talks and negotiations, given that the UN recognises Polisario as the representation of the people of Western Sahara..

To the European Union:

- To ensure that the aspiration of importing energy does not override its overarching obligations under international law to not recognise Morocco’s occupation of Western Sahara, and to put in place the necessary safeguards to exclude the import of energy from occupied Western Sahara.
- To ensure that all constituent institutions prevent EU funding of any energy infrastructure projects in occupied Western Sahara.
- To abide by the rulings of the Court of Justice of the European Union that qualify Western Sahara as separate and distinct from Morocco, and implement a policy of differentiation across all policy domains, including renewable energy.

To governments:

- To ensure appropriate advice is available to corporations proposing to do business in or otherwise support development activities in Western Sahara and highlight the specific limitations on renewable and non-renewable resource development activities owing to the territory’s status as a Non-Self Governing Territory. Information offered by governments and their trade and development agencies should invariably note the requirements of international law, namely that the people of the territory must give prior consent to such activities.
- To encourage the UNFCCC secretariat to reject projects carried out by State Parties outside of their national territory or the inclusion thereof in NDC progress reports.
- To raise with the UNFCCC the systematically erroneous NDC reporting by the Government of Morocco, which includes projects outside of its internationally recognised borders, in a territory kept under occupation in violation of the UN Charter.

To financial institutions:

- To not provide financial support or funding to Moroccan energy projects planned in Western Sahara.

To the African Development Bank:

- To respond to letters from civil society and to issue a statement that it will not contribute to Moroccan energy infrastructure in occupied Western Sahara.
- To reject financial support for any project submitted by Moroccan governmental bodies that apply to Western Sahara, and immediately freeze all further funding of ONEE’s project foreseeing the construction of a 400 KV Line connecting Hagounia (Western Sahara) to Agadir (Morocco).

To international environmental NGOs and other users of data published by the UNFCCC secretariat:

- To never reproduce data regarding goals and achievements reported by Morocco, including material on Morocco from the UNFCCC website, as these figures are clearly and systematically declared erroneously, extraterritorially, and contrary to principles of international law, especially when considering the UNFCCC does not review data submitted by states.



When Morocco had an exposition in the European Parliament in 2016 – controversially including projects in Western Sahara in the maps of Morocco – the Parliament instructed their removal over incorrect information.²²⁵ “We wish to see the same clear practice by the UNFCCC”, states Asria Mohamed, a Saharawi from the refugee camps in Algeria, here seen at the Moroccan exposition.

“We have engaged with the companies but found that they have not carried out comprehensive human rights due diligence of the projects and their business partners in Morocco occupied Western Sahara [...] The companies are involved in wind farms projects in occupied Western Sahara partnering with Moroccan authorities and private sector and neither the companies nor their partners have consulted and obtained the consent of the Saharawis as required by international law. The companies intend to continue with these projects. Storebrand cannot via its investment contribute to a situation that can legitimize violation of international law”.

Tulia Machado-Helland, Head of Human Rights at Storebrand Asset Management, Norway's largest private asset manager, upon the exclusion of Siemens Energy, Siemens Gamesa and Enel SpA from their investment universe in 2021.²²⁶

Notes

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“The Court’s conclusion is that the materials and information presented to it do not establish any tie of territorial sovereignty between the territory of Western Sahara and the Kingdom of Morocco or the Mauritanian entity. Thus the Court has not found legal ties of such a nature as might affect the application of General Assembly resolution 1514 (XV) in the decolonization of Western Sahara and, in particular, of the principle of self-determination through the free and genuine expression of the will of the peoples of the Territory.”

International Court of Justice, 16 Oct 1975

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