

SOCIAL IMPACT ASSESSMENT REPORT

FOR THE PROJECT

WIND POWER PLANT GVOZD

18th June 2019



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1 Introduction

The Company IVICOM Holding GmbH (IVICOM), successfully led the development and implementation of the project Wind Power Plant Krnovo (WPP Krnovo) with a total capacity of 72 MW, in Montenegro. IVICOM founded the company Green Gvozd LLC (the Company or Green Gvozd) in 2015, with the aim of developing a new wind power plant Gvozd (WPP Gvozd) on the territory of the municipality Nikšić, with a total capacity of up to 50 MW at handover into the transmission system (the Project). Project financing is planned to be secured partly through a loan from international financial institutions.

IVICOM signed a Memorandum of understanding with Elektroprivreda Crne Gore AD Nikšić (EPCG) in 2018, which states that EPCG is interested in cooperating with the company IVICOM on the development of the Project, through acquisition of a minority stake in the company Green Gvozd, with an option of acquiring the majority stake in the following phase. EPCG will acquire the minority stake in the company Green Gvozd through, among other things, expropriation of the remaining land needed for the construction of WPP Gvozd, which Green Gvozd did not manage to acquire through direct negotiations with owners of land.

The process of carrying out an impact assessment for the WPP Gvozd Project has been divided in two parts, which have been developed in different studies, as follows:

- Environmental Impact Assessment (EIA) Study, which has been developed in accordance with national legislation of Montenegro, with application of best international practice and standards.
- Social Impact Assessment (SIA) Study, which has been prepared in line with international standards and requirements.

This document represents the SIA and presents the assessment of impacts of the proposed Project on communities and individuals, as well as social and economic assets within the Project area of influence. The document was developed by social consultants, LINK 011, with data provided by the companies IVICOM and Green Gvozd, as well as other stakeholders.

Having in mind that local legislation does not require a detailed social impact assessment for the Project, this study has been prepared as a separate document, in line with requirements of international financial institutions. The reference standards against which the impact assessment has been carried out are the Environmental and Social Performance Standards of the International Finance Corporation (IFC), a member of the World Bank Group.

The SIA is published in Montenegrin and English, on the website of the company Green Gvozd: <u>http://green-gvozd.com</u>.



2 Project Description

The location where WPP Gvozd is planned to be built is located on the territory of the municipality Nikšić in Montenegro. The closest populated area to the location where WPP Gvozd will be constructed is the village Gvozd, located at the foot of the southern end of the Project footprint. Šavnik is located around 9 km north of the WPP Gvozd footprint, while Nikšić (city) is located around 12 km southwest of the footprint. A map showing the approximate location of WPP Gvozd in Montenegro, is presented in Figure 1.



Figure 1

Project activities comprise phased construction and operation of the following components:

- Up to 16 wind turbines, with an exit strength of up to 5 MW, along with construction of typical plateaus for the installation of wind turbines and foundations on which the wind turbine pillars will be established;
- Substation 33/110 kV Gvozd within the Project footprint (on site);
- Reconstruction of the substation 33/110 kV Krnovo;
- Overhead line (OHL) 2 x 110 kV Substation Gvozd Substation Krnovo, with a total length of 2,919 m;
- OHL 110 kV Substation Gvozd Substation Nikšić, with a total length of 14,730 m and reconstruction of the Substation 35/110 kV Nikšić.

An overview of the layout of Project components is provided in Figure 2.





Figure 2

In addition, the Project will require the rehabilitation and construction of approximately 15 km of roads.

Construction of all facilities is expected to begin in 2021 and end in 2022.

The importance of constructing WPP Gvozd, and benefits for the municipality Nikšić, is expressed through the following parameters:

- Economic and technological development;
- Diversification of production and stability of supply of electricity;
- Increase in local production and reduced import of electricity;
- Export of the produced electricity after construction, through Substation (400)/110/35 kV Brezna;
- No feed-in tariffs;
- Reduction of CO2 emissions;
- Engagement of local subcontractors for the construction of WPP Gvozd;
- Employment of the local population for construction and operation / maintenance of WPP Gvozd;
- Improvements in the local transport infrastructure;
- Compensation for the leasing and purchasing of land;
- Educational and tourist visits.



At the time of developing this report, a draft Environmental Impact Assessment Study has been prepared for the Project and submitted to the Agency for the Protection of Nature and the Environment of Montenegro, for review and approval, in accordance with the procedure regulated by the EIA Law (Official Gazette of Montenegro 75/18).

3 Legislation, Policy and Guidance

3.1 Montenegrin Administrative and Legislative Framework

Under the Law on Territorial Organisation (Official Gazette of Montenegro 054/11, 027/13, 062/13, 012/14, 003/16 and 031/17), Montenegro is divided into 22 municipalities and the Old Royal Capital Cetinje and the Capital City Podgorica, as two distinct administrative units. Under the Law on Local Self Government (Official Gazette of Montenegro 02/18) municipalities, Cetinje and Podgorica are units of local self government. Their bodies of government include: municipal assembly, president of the municipality (mayor) and local administration. Key responsibilities of the local self governments include: urban and spatial planning, housing, communal services, local economic development, management of construction land, use and protection of agricultural land, local roads, environmental protection, primary health care, public information, etc. Some responsibilities are shared with central government, in the areas of education, social welfare, health protection, employment, etc. Local self governments are financed out of: (i) own revenues, (ii) funds granted by law, (iii) Equalisation Fund, (iv) the budget of Montenegro and other sources, in line with the law.

In Montenegro, the possibility of acquiring privately owned land through expropriation, as regulated by the Expropriation Law (Official Gazette of the Republic of Montenegro 055/00, 012/02, 028/06 and Official Gazette of Montenegro 021/08, 030/17 and 075/18), is available only to local and national governments, as well as public companies. Private companies have to acquire land through voluntary transactions regulated by the Law on Obligations¹ (Official Gazette of Montenegro 047/08 and 022/17). The Energy Law (Official Gazette of Montenegro 005/16 and 051/17) provides for the right of energy subjects who perform energy operations, to access privately owned land for construction, repairs and maintenance of energy facilities, including OHLs. More details about the project land acquisition are provided in section 4.7.

Montenegrin legislation guarantees that everyone shall have the right to be informed accurately, fully and timely about issues of public importance. These provisions are included in the Constitution of Montenegro (Official Gazette of Montenegro 001/2007), as well as in the

¹ Contracts Law



Law on Free Access to Information of Public Importance (Official Gazette of Montenegro 044/12 and 030/2017). The Law on Spatial Planning and Construction of Structures of Montenegro (Official Gazette of Montenegro 064/17, 044/18 and 063/18) regulates the development and adoption of planning documents in Montenegro, which are all subject to a public disclosure and consultation process. The same requirements for disclosing information and organising public hearings also pertain to the main environmental protection laws of Montenegro.

Montenegro has been a member state of the International Labour Organisation (ILO) since 2006, after it declared independence from Serbia and Montenegro. The country ratified 69 ILO International Conventions, including the eight fundamental Conventions. Labour and human resources management in Montenegro is primarily regulated through the Labour Law (Official Gazette of Montenegro No. 49/08, 26/09, 88/09, 26/10, 59/2011, 66/12, 31/14, 53/14 and 4/18 – Constitutional Court Decision).

3.2 International Finance Corporation Policy

The International Finance Corporation (IFC) Environmental and Social Performance Standards (2012) have been a key consideration in the production of this document, including the overarching Performance Standard 1 – Assessment and Management of Environmental and Social Risks and Impacts. The objectives of Performance Standard 1 are summarised below:

- To identify and assess environmental and social impacts and issues, both adverse and beneficial, associated with the project;
- To adopt measures to avoid, or where avoidance is not possible, minimize, mitigate, or offset/compensate for adverse impacts on workers, affected communities, and the environment;
- To identify and, where feasible, adopt opportunities to improve environmental and social performance;
- To ensure that grievances from affected communities and other stakeholders are responded to and managed appropriately;
- To ensure that relevant environmental and social information is disclosed and disseminated and that affected communities are adequately engaged with throughout the project cycle on issues that could affected them

A review of all IFC Performance Standards has been undertaken to identify key social impacts that should be considered in this document. In addition to PS 1, Performance Standard 2 on Labor and Working Conditions and Performance Standard 5 on Land Acquisition and Involuntary Resettlement have been identified as relevant. Issues in relation to Performance Standard 4 on Community Health, Safety, and Security have been mainly addressed in the National EIA, however certain aspects are also discussed in this report.



4 Assessment Methodology and Significance Criteria

4.1 Scope of the Assessment

This report considers the potential socio economic impacts as a result of the proposed Project, associated with the following issues:

- Land use
- Employment and procurement opportunities
- Livelihoods
- Community health, safety and security
- Revenue generation for the state and municipality
- Infrastructure

Impacts and mitigation measures associated with community health, safety and security, as well as impacts on infrastructure are addressed in the national EIA, while this report focuses on only some of the social impacts associated with these issues.

4.2 Extent of the Study Area

The primary area of influence considers all project impacts on local resources and receptors and it is the focus of the impact assessment. In this particular case it refers only to the Project site as a whole, as there are no nearby residential areas, i.e. local communities. There are only a few seasonal residences, i.e. weekend houses or shepherd cottages, including structures grouped in the settlement Gvozd, which is not permanently inhabited.

A satellite image of the village Gvozd is given in Figure 3 – wider and focussed view (source: Google Earth).





Figure 3

The secondary area of influence considers larger scale impacts on a wider, regional level. This area comprises Nikšić municipality.

The tertiary area of influence considers Project impacts on a national scale.

4.3 Information Disclosure and Consultation

During the SIA scoping stage, from 1-2 April 2019, a team consisting of representatives of IVICOM Consulting from Zagreb, Gvozd LLC from Podgorica, Institute for Development and Research in the Area of Labour Health and Safety (Ecology Sector) from Podgorica and LINK 011 from Belgrade, held meetings with key stakeholders, the results of which are presented in this chapter.

Meetings were held with the following stakeholders:

- A representative of EPCG;
- Representatives of the municipality Nikšić;
- Members of the Committee for Determining the Amount of Just Compensation, formed by the Real Estate Administration, in line with the Law on Expropriation of Montenegro;
- A representative of the Real Estate Administration of the branch office in Nikšić;
- Representatives of the organisation Ecological Movement Ozon from Nikšić;
- Representatives of the organisation Centre for Protection and Research of Birds (CZIP²) from Podgorica, a member of the International Union for Conservation of Nature and Birdlife International;
- A representative of the Agency for the Protection of Nature and the Environment of Montenegro;
- An owner of land purchased by Green Gvozd for the Project.

Representatives of the municipality Nikšić (municipality Manager and the Main City Architect), expressed their full support for the Project, especially having in mind the previously implemented project WPP Krnovo, whose development and implementation was led by the same company. They pointed out numerous benefits which the previous project created for the local community, starting from new access roads in Krnovo, engagement of construction companies from Nikšić and other parts of Montenegro for construction of the wind power plant, procurement of goods and services from local suppliers, improved electricity supply, beginning of the development of local tourism, etc. According to them, there were no negative impacts of the construction of WPP Krnovo, including in relation to transport of wind turbines

² Centar za zaštitu i proučavanje ptica



to the project location, which was carried out during the night and did not disrupt local traffic. They expressed their expectation that the same will happen with the construction of WPP Gvozd.

Representatives of the Real Estate Administration and the Committee for Determining the Amount of Just Compensation, explained to the team the process of expropriation and the latest changes of the Law on Expropriation of Montenegro, and informed the team on the status of expropriation for project roads. At the time of the meeting, the valuation of land was completed, the compensation rate was established and the project for the re-defining of land parcels was in the process of being developed. The representatives of the mentioned institutions expressed their view that there will be no major issues in relation to land acquisition, as land in the affected area is largely unused and the compensation rate which has been established and will be offered is far above the actual market value of the land.

During the meeting with the EPCG representative, it was confirmed that both the Government of Montenegro as well as the company EPCG, view the construction of the WPP as an exceptional benefit for the energy system of the country, which is fully aligned with the strategy for the development of that system. The fact that the state will become an owner of the Project, 20 years after it is implemented, additionally strengthens the support that EPCG and the municipality Nikšić are providing to the company Green Gvozd. Expropriation and land acquisition for the remaining wind turbines and the construction of OHLs will be carried out by EPCG, in line with the laws of Montenegro, as well as international good practice standards, which EPCG is well experienced with, having worked on World Bank projects before.

Meetings were also held with two non-government organisations, Ozon and CZIP. Both organisations expressed satisfaction that the identified shortcomings during the development of the project WPP Krnovo, in relation to information exchange and cooperation with the civil society sector, have now been overcome. They also stated that based on the experience with WPP Krnovo, they do not expect any major issues in relation to environmental and nature protection for the project WPP Gvozd, however that they hope that cooperation will continue and that they are willing to share their data to contribute to the development of a high quality EIA Study. The organisation Ozon suggested that a meeting with several more interested organisations should be organised to present the draft EIA Study, which the team accepted. After that, Green Gvozd and the EIA developer contacted the organisation Ozon with the aim of organising the requested meeting. However the Ozon representative told them that he believes there is no need to organise this meeting after all and that he will submit his comments on the EIA within the scheduled EIA public disclosure process, carried out in accordance with national legislation.

A meeting was held with a representative of the Agency for the Protection of Nature and the Environment who informed the team that the Agency is well acquainted with the Project,



because the Agency representatives already had meetings with Green Gvozd. The team then informed the Agency representative about other meetings which were previously held and the conclusions and agreements that were reached at these meetings in relation to next steps. What was underlined several times by the Agency representative was the satisfaction with the Company's approach to cooperation with stakeholders. The Agency representative finds this approach to be particularly good and that it is something that is strived for on all projects, to ensure the best results and that the assessment studies are of a high quality, while the number of comments on them is reduced to a minimum. It was highlighted that the Project will have full support from the Agency and that its representatives are available to the Company for all needed assistance in further developing the Project, starting from a review of the EIA Study.

During the meeting with one of the owners who sold her land plot to the Company for the construction of a wind turbine, it was confirmed that she and her brother, who is the co-owner of the land plot, are extremely satisfied with the offered price, the process for concluding the contract and the speed at which the agreed sum was paid to her. As she owns several more land plots in the project area, she expressed her willingness to sell them under the same conditions, if the company Green Gvozd needs additional land. She also confirmed that neither she nor her brother used the land in question before the sale and that she rarely even went to this area to look after the land which she inherited. She also stated that other owners she knows rarely go to visit their land plots, because of, among other reasons, the very inaccessible terrain (which will now be more accessible because of the construction of access and service roads), and that a small number of them have weekend houses there, however at the foot of the WPP Gvozd location, which they use only during the summer, for a short period, because of strong winds.

During the development of this study, a public hearing was held for the Project national EIA, organized by the Agency for the Protection of Nature and the Environment on 17.05. 2019. in the meeting room of the Niksic municipality building. Unfortunately, despite the announcement for the EIA hearing published in the daily paper Pobjeda on 16.04.2019. none of the representatives of the interested public attended the hearing. Apart from the Agency, the meeting was attended by representatives of the companies IVICOM and Green Gvozd, the EIA developer, EPCG, the Real Estate Administration from Niksic and the municipality Niksic.

Further details on information disclosure and planned consultations for the project are provided in the Project Stakeholder Engagement Plan.

4.4 Method of Baseline Data Collection

Secondary data for this chapter was collected via a desk study mainly of statistical information available from the latest population census carried out in Montenegro in 2011. Additional data



was obtained from relevant municipal or regional studies, reports and plans, as well as other documents and sources provided by IVICOM and Green Gvozd.

As part of developing this social impact assessment, one site visit was undertaken to the project affected area on 1-2 April 2019 (as described in section 4.3 above).

4.5 Significance Criteria

The assessment of potential impacts as a result of the proposed Project has taken into account both the construction and operational phases. The significance level attributed to each impact has been assessed based on the magnitude of change due to the development proposals, and the sensitivity of the affected receptor to change. Magnitude of change and the sensitivity of the affected receptor are both assessed on a scale of high, medium, low and negligible.

The following terms have been used to define the significance of the impacts identified:

- Major impact: where the proposed Project could be expected to have a very significant impact (either positive or negative) on communities and individuals or social and economic assets;
- Moderate impact: where the Proposed Project could be expected to have a noticeable impact (either positive or negative) on communities and individuals or social and economic assets;
- Minor impact: where the Proposed Project could be expected to result in a small, barely noticeable impact (either positive or negative) on communities and individuals or social and economic assets; and
- Negligible: where no discernible impact is expected as a result of the Proposed Project on communities and individuals or social and economic assets.

4.6 Baseline Conditions³

4.6.1 Socio – Economic Environment

The project site is located in the Nikšić municipality which has an area of 2,065 km² and is territorially the largest municipality in Montenegro (see Figure 5). The road distance between the city of Nikšić and the capital, Podgorica is around 55 km. To the west, the municipality borders with Bosnia and Herzegovina.

³ The source of most of the statistical population data in the chapter: Statistical Office of Montenegro (Statistical Yearbook of Montenegro 2018) and the official census data from 2011







As determined by the Ministry of Economy, based on the Law on Regional Development of Montenegro (Official Gazette of Montenegro 20/11), Nikšić municipality belongs to category four (on a scale from one to six), with a level of development between 75 and 100% of the republic level average, which places it in a group of averagely developed municipalities. The total budget of Nikšić municipality for 2019 is 21,900,000 EUR.

4.6.2 Demography

Nikšić municipality has a population of 72,443 (estimated at 70,042 in 2017), living in 21,538 households, making up approx. 11.7% of the population of Montenegro. In 2017, the natural increase rate was negative (-1.1), as opposed to the positive natural increase rate for the country as a whole (1.5). Most of the population is concentrated in the urban area of Nikšić (approx. 80%), with far less people living in rural areas.

The population in the municipality is evenly split between men and women (49.4% / 50.6%). The average age of the population s 37.8 years, with a slightly older population in rural areas (40.2 years of age).

The majority of the population has declared itself as Montenegrin (64%), followed by Serbian (25.3%), those who did not want to declare their nationality (6.7%) and others – Roma, Egyptians, Muslims, Montenegrins/Serbs, Serbs/Montenegrins, Bosniaks, Yugoslavs, Croats, etc.



all with less than 1%. This is different than the make up of the population at the national level, where Montenegrins are also the majority, but to a lesser degree (45%), followed by Serbs (29%) and with a higher percentage of other minorities, particularly Bosniaks, Albanians and Muslims.

The vast majority of the population in the municipality is Orthodox (91.4%). The official language is Montenegrin which belongs to a group of similar languages including Serbian, Croatian and Bosnian. Both the Latin and Cyrillic alphabet are officially used.

4.6.3 Infrastructure

Nikšić municipality has approximately 680 km of roads infrastructure, of which approx. 38% is made up of highway and regional roads, 34% of local, 24% of small local routes and the remaining 4% of city streets. There is railway infrastructure in the municipality, including a line between Nikšić and Podgorica, however the quality of transport is very low and requires further investments. The municipality has a small recreational airport on its territory.

All routes of transportation previously used for the construction of the Krnovo windfarm, already adapted, will be used for Gvozd, including for the transport of wind turbines from the port Bar on the Adriatic Sea. From the major road M-4.1 (Jasenovo Polje - Kruševice - Šavnik – Žabljak), transport will continue to individual turbine locations through local access roads, to be re-constructed and constructed as part of the Project.

Drinking water is supplied in all inhabited areas of the municipality, either through the city water network (90%) or small village networks (10%). Solid waste disposal is organised in approx. 70% of the municipality. Sewage water is discharged into the public sewage network only in the urban part of the municipality. The electricity and telecommunications networks are developed in the whole municipality.

4.6.4 Local Economy, Employment and Unemployment

The municipality Nikšić is an important industrial centre of Montenegro, with businesses that include the mining industry, the still mill, the brewery with its famous brand of beer "Nikšićko pivo", the wood plant, food processing and textile industries. The process of privatization is either finished or still in progress for some of these industries and alongside that, the economy of Nikšić is slowly transforming into a more retail and service-oriented one (i.e. shops, restaurants, education, health).



Nikšić municipality has tourism infrastructure in place, which includes several large hotels and private accommodation. In 2017, a total of 8,815 tourists were recorded in the municipality, of which close to 83% were foreign tourists, mostly from other countries in the region.

The 2018 annual average of the total number of persons employed in Nikšić municipality was 13,882. According to the Employment Agency of Montenegro in February 2019, a total of 3,802 persons (close to 8% of the working age population) were registered as unemployed in the municipality, 62.3% of whom were women.

The average net monthly income in Montenegro is around 500 EUR and the same applies to the municipality Nikšić.

4.6.5 Education

In Nikšić municipality, approximately 6.9% of people have no education or incomplete primary education (65% of whom are women, mostly over the age of 65), 15.9% have basic primary education, 45.1% have secondary education and 13.1% have a college or university level degree (52% of whom are women). The rate of illiteracy in the municipality is 0.2% for men and 1.3% for women.

There are 21 primary and 5 secondary public schools in Nikšić municipality, as well as two public university faculties including Philosophy and Physical Education. All other public universities all concentrated in the nearby Podgorica.

4.6.6 Health

Life expectancy in Montenegro is around 77 years. The most significant causes of death are cardiovascular diseases and tumours.

There are two hospitals in Nikšić municipality, one general and the other specialized for lung diseases. The municipality has a primary health care centre, including an emergency medical services department. The major health institutions are also located in the nearby Podgorica.

4.7 Land Use and Project Land Acquisition Requirements

The total area of Nikšić municipality is 2,065 km² (206,500 Ha). The dominant land category is forest land comprising 72% (approx. 149,000 Ha) of the total land area, followed by agricultural land comprising 26% (approx. 54,500 Ha). Agricultural land predominantly comprises pastures and meadows (93%), while only 7% of the land is farmed (arable, vegetable gardens, orchards and vineyards).



The Project site, as defined by the Local Study for the Location Gvozd, is 2,028 Ha (approx. 20.3 km²) and is characterised mainly by Montenegrin karst, where the ratio of rocks and vegetation varies. The study further specifies that the affected area comprises mainly pasture land, much less meadows and arable land, and low grade forests and rocky land. Typically, the affected area is covered by snow for most of the year and winds are exceptionally strong. See Figure 6 below showing the typical landscape of the Project area).



Figure 6

There are no permanently inhabited settlements, only occasional and scattered seasonal residences, i.e. weekend houses and shepherd cottages in the project area. There is only one location where a few seasonal houses are grouped together and it is the village Gvozd, located southwest of the project location.

The project requires permanent acquisition of land for the following Project components:

- Up to 16 wind turbines, including construction plateaus (this includes alternative/reserve locations),
- Onsite substation Gvozd
- OHL tower foundations for:
 - 2 x 110 kV Substation Gvozd Substation Krnovo, total length 2,919 m
 - 110 kV Substation Gvozd Substation Nikšić, total length 14,730 m



The project also requires acquisition of easement rights for the installation of underground cables and pipes (alongside or under roads).

No structures will be affected by land acquisition for this project.

Generally speaking, areas of land being acquired for the project are very small. In addition, the affected land includes mostly pasture and low grade forest land, or unused, rocky land, and therefore its acquisition, especially given the fact that compensation will be paid at full replacement cost, is not expected to cause any economic displacement for owners and users of land.

4.7.1 Wind Turbines and Onsite Substation Gvozd

A total of 13.1 Ha of land (94 plots), have to be acquired for the 16 wind turbines. Of those, 11 Ha (87 plots) is privately owned land belonging to 85 owners and co-owners, while the remaining land is government owned. It should be noted that the number of owners is not definite, as although some plots are registered under a certain owner, the owner may be deceased with numerous heirs. For the substation Gvozd it is necessary to acquire an additional 0.75 Ha of privately owned land.

At the time of developing this report, the company Green Gvozd, acquired a total of 3.8 Ha of privately owned land, belonging to 22 owners, through voluntary sale purchase option contracts. The signed and notarised contracts stipulate that land is being acquired at a price of 2 EUR per m², with 80% of the total price paid upon contract signature, while 20% is to be paid upon the completed land parcelling procedure and accessing of land by Green Gvozd. Some of the land needed for the wind turbines has been previously rented from owners, for the installation of meteorological anemometers to measure wind potential, with annual one off rent payments (at a rate of 0.2 EUR per m²).

Green Gvozd will continue to acquire land through voluntary sale purchase agreements, however for all land remaining unacquired for the turbines and the substation, expropriation will have to be carried out, by EPCG. According to Green Gvozd representatives, the main reason for having to initiate expropriation is that in some cases, one needed land plot is owned by many owners (heirs of original owners), some of whom live abroad and are difficult to reach to be able to sign a contract. As an example, there is one case where the last registered owner is from 1876, while today, there are more than 200 of his heirs who own the land in equal parts. The same price offered to owners in voluntary sale purchase agreements (2 EUR per m²) will be used in the process of expropriation by EPCG. According to municipality representatives and the interviewed owner who sold her land to Green Gvozd, the realistic market price in the affected area is 0.5 EUR per m², although even the demand for this land is very low.



4.7.2 Access and Service Roads

A total of 26.6 Ha of land, have to be acquired for the construction and reconstruction of access and service roads. Of those, 21.03 Ha are privately owned, while the remaining land is government owned.

At the end of 2016, Green Gvozd signed a contract with the municipality Nikšić by which the municipality participates in the development of the project through expropriation of land needed for roads that will be used during construction and operation of the windfarm. The company Green Gvozd will bear all costs of expropriation, including the compensation amount paid to affected owners of land. At the time of developing this report, expropriation did not begin yet, however valuators carried out an assessment of land prices in the affected area and concluded that the compensation rate of land for access and service roads will be the same as for the wind turbines - 2 EUR per m². The municipality will remain the owner of all acquired land, while Green Gvozd will bear all costs associated with construction/reconstruction of the roads.

Once land has been acquired for the construction of roads by the municipality, Green Gvozd will be granted easement rights to install underground cables and pipes, for the windfarm, alongside or under the roads. An annual fee of 30,000 EUR will be paid by Green Gvozd to the municipality for all established easement rights.

The construction of roads is often associated with the creation of orphan land, i.e. land which is left economically unviable after acquisition of a part of a plot, which could further lead to economic displacement. However, under the Expropriation Law, such land has to be acquired at the request of the owner of land, if certified valuators establish that the remaining land can no longer be used.

Land acquisition for access and service roads will not impact any structures.

Table 1 below provides information on land that will be acquired for access and service roads. The last column presents the percentage of private land that is being acquired and as can be seen, on average, no more than one fifth of land will be affected in Konjsko cadastral municipality, while in the other two, this percentage is even lower.



Table 1

Codestrol	Total area of affected plots (in Ha)		Area of plots to be acquired (in Ha)		% of privately owned plots
Cadastral municipality	Total area of affected plots (in Ha)	Of that, privately owned (in Ha)	Total area of plots to be acquired (in Ha)	Of that, privately owned (in Ha)	which will be acquired for the project
Konjsko	73.4	0.66	3.4	0.14	21.21%
Ćeranića Gora	138.19	112.88	17.5	15.66	13.87%
Gradačka poljana	65.8	60.52	5.7	5.23	8.64%
TOTAL	277.39	174.06	26.6	21.03	12.08%

4.7.3 Overhead Lines

According to the Project EIA, transmission line routes were selected to avoid inhabited areas and acquisition of structures, as well as privately owned land, to the extent possible. At the time of developing this report, there was no detailed information on the number of plots, owners or areas of land that will need to be acquired for the 110 kV OHLs.

Land for 15 corner OHL towers was already purchased from 31 owners (0.18 Ha) by Green Gvozd through voluntary sale purchase agreements. 121 m² is needed for each individual tower and the price which was paid was 5 EUR per m² (2.5 times higher than the price for windfarms and roads), because affected areas are so small. Land for these towers was also purchased through notarised option contracts, with half of the amount paid upon contract signature and the remaining amount to be paid upon the completed land parcelling procedure and accessing of land by Green Gvozd.

Land needed for the remaining OHL towers (estimated 45 towers, totaling less than 1 Ha of land) will be acquired by EPCG, who will try to negotiate further agreements with landowners, paying the same price as Green Gvozd. Most of the towers may be moved within the defined corridor and based on previous practice, even if one owner refuses to sell the land or cannot be found/identified, owners of nearby land plots may be willing to do so. In the end, if all needed land cannot be acquired through voluntary agreements, expropriation will be initiated by EPCG. Compensation costs will be borne by EPCG.

During the construction of the OHLs, privately owned land which has not been permanently acquired, may have to be used and could cause damages to crops, trees, etc. The same can occur during the operations phase for repairs and maintenance of OHLs. As per the Energy Law, affected owners of land are to be compensated at market price for all losses and damages, as



agreed between the two parties through a process of negotiation, or if they fail to agree, through the responsible courts.

Land acquisition for OHL towers will not impact any structures.

5 Assessment of Impacts, Mitigation and Residual Effects

5.1 Construction

5.1.1 Land Use

In total 40 Ha of land will be occupied during construction and remain permanently occupied during the operations phase. This translates to less than 2 % of the Project site and 0.02 % of the total land in the Nikšić municipality.

The total land which will be affected during construction is only a small portion of land in the area. This impact is assessed as minor negative.

5.1.2 Employment and Procurement Opportunities

The workforce needed during the construction phase of the Project will be sourced locally (primarily from the Nikšić municipality), nationally (from other parts of Montenegro) and internationally, through third party construction firms. Due to the technical nature of the Project, it is likely that most of the skilled and semi-skilled labour will be sourced nationally and internationally.

It is not expected that more that 100 people will be employed during construction, both for the windfarm and OHLs. Accommodation will not be provided for workers and it is anticipated that personnel, with the exception of specialists, will be hired from the municipality and transportation will be provided by the contractors. The construction phase will last for about 24 months, however not all workers will be employed all the time. The frequency at which workers will be employed and the duration of their engagement could not be estimated at the time of developing this report and will depend on the contractors' organization of work.

Employment of workers will have a significant effect on those who are employed, however this will be a small portion of the total population and will not significantly reduce unemployment in the municipality. The employment of individuals from the municipality will however be beneficial as it is expected to lead to improved relationships between the Project and local



authorities and improved local skill set which may be valuable for future projects. This impact has been assessed as minor positive.

The creation of indirect employment opportunities is associated with:

- the project's supply chain (goods and services)
- spending of project employees in local communities

The wind turbines will be imported and delivered to the site via the port of Bar. Materials needed for civil works (i.e. cement, clay), as well as the materials needed for infrastructure improvements, will most likely be procured locally by the selected construction company, as they are available in the area.

Employment of non locals, as well as the increase of incomes of local employees, may also bring in some minor benefits for the local population, associated with increased spending in the project area, i.e. in shops, bars and restaurants. Indirect employment is likely to provide more opportunities for women, as opposed to direct employment, which will most likely involve more men.

There is no available data from which to estimate levels of indirect employment in Montenegro and the impacts will depend on the nature of the local economy, the availability of required goods and services in the Project area and ways in which employees choose to spend their earnings. However, taking into account the import of turbine components, the technical nature of procurement requirements, the short two year construction timeframe and the number of employment opportunities, impacts related to indirect employment are assessed as minor positive.

Appointed construction contractors and suppliers will have to abide by the Montenegrin Law on Labour and other relevant legislation, which is mostly in agreement with IFC's labour related requirements contained in PS 2. Any additional measures that must be undertaken will be described in the mitigation section.

5.1.3 Livelihoods

All land permanently acquired for the Project through expropriation, as well as any losses or damages to crops, plants trees, will be compensated at full replacement cost and therefore, the project will not cause any economic displacement or impacts on livelihoods.

Reduction in land available for use is not expected to have any impact on livelihoods, due to the small scale of land take and the availability of other land in the area.



Increased incomes generated through direct and indirect employment may have a positive effect on livelihoods in the local area, however only for a very small number of local households whose members will be employed by the project. Although this may be significant for the households in question, it is not significant to the population as a whole. Some increased spending of these households together with non local employees in the local area could further positively benefit local businesses, although this is not expected to have a significant effect. This impact is assessed as negligible.

Transport will be carried out outside of peak traffic hours and at night when possible, to reduce impacts on commuters and businesses along the transport route. Therefore, no impacts on livelihoods, as a result of transport and traffic are expected.

5.1.4 Community Health, Safety and Security

The availability of temporary construction employment opportunities is sometimes associated with an increase in vulnerability and susceptibility of local communities to increased crime, alcoholism, etc. However, given that there are no inhabited settlements near the project site and the low number of workers who will be engaged, any impact on local communities in relation to social pathologies is assessed as negligible.

Transport and increased traffic can lead to more possibilities for accidents for the local population as well as to a reduced quality of life. However, given the overall scale of the project and project related transport, these impacts have been assessed as minor negative, although accidents involving local community members will have serious effects on the individual or his/her household.

5.1.5 Infrastructure

The construction and reconstruction of access and service roads prior to construction will benefit local land users, as it will lead to improved access to their plots of land. The impact has been assessed as minor positive.

The project site is located far from any inhabited area and utility infrastructure will have to be secured locally on the project site, i.e. water, electricity, sewage. There will be no impact on community infrastructure.



5.1.6 Mitigation

5.1.6.1 Land Use

- If any land not previously acquired for the project is disturbed during construction, promptly compensate landowner/user for any damages and fully reinstate the land to its previous condition.
- Establish and implement a community grievance mechanism

5.1.6.2 Employment and Procurement Opportunities

The engagement of all non employee workers will follow international best practice, with the main measures comprising the following:

- Implement transparent and fair recruitment procedures
- Ensure that all non employee workers are engaged in line with both national legislation and applicable international (ILO) standards and recommendations
- Provide a grievance mechanism for workers

To foster the creation of indirect employment opportunities, the Project will procure goods and services locally whenever possible.

5.1.6.3 Community Health, Safety and Security

Increase in traffic (bringing equipment and materials to the site and employee travel) could lead to more accidents in the local communities and reduced quality of life. These impacts will be managed with the implementation of the following measures:

- Develop and implement a traffic management plan
- Enforce a workers code of conduct (guidance on safe driving)
- Cooperate and coordinate with local health and safety, as well as security facilities

5.1.7 Residual Effects

In total, 40 Ha of land will remain permanently unavailable for use after the construction phase.

Any incidents or accidents involving local community members could lead to tensions between the local population and Green Gvozd, which is why they will be prevented to the greatest extent possible.



5.2 Operation

5.2.1 Impacts to Land Use

As mentioned in the construction section of this chapter, 40 Ha of land previously occupied for construction will remain permanently unavailable for use. No further impacts on land use are foreseen during the project operation phase.

5.2.2 Employment and Procurement Opportunities

The life of the project is expected to be at least 25 years and during that time a small workforce will be needed. Green Gvozd estimates that approx. 5 individuals (mostly national) will be employed during operations. This will give long term stability to the full time employees and will have a significant effect on their lives. However, within the municipality and even more at the national level, this number is very low and the impact has been assessed as negligible.

Indirect employment may occur as a result of increased spending of those employed by Green Gvozd, however since this number is so low, this is also assessed as a negligible impact.

The procurement of local goods and services is also likely to be minimal and have a negligible effect on local economies.

5.2.3 Livelihoods

Any losses or damages to crops, plants trees, during the operations phase, will be compensated at full replacement cost and therefore, the project will not cause any economic displacement or impacts on livelihoods.

5.2.4 Revenue Generation

The project will directly benefit Montenegro as a country and the municipality Nikšić through generated revenues. The municipality already receives tax / VAT revenues, through the operation of Green Gvozd LLC registered in the municipality and the municipality will also directly benefit from 30,000 EUR paid annually for the instigation of easement rights, as described in section 4.7.2.

The direct financial benefit for the municipality may not be significant in terms of the overall amount, having in mind that the total budget of the municipality is 22 mil EUR, however, this benefit will allow the municipality to make some investments over time and will improve the



delivery of certain services to citizens, particularly in terms of infrastructure improvements. Therefore this impact has been assessed as minor positive.

Representatives of the municipality mentioned that the construction of Krnovo wind farm is already accompanied by increased tourism in the area and the construction of Gvozd windfarm may further increase this benefit. The impact has been assessed as minor positive.

5.2.5 Infrastructure

Green Gvozd will have to carry out regular maintenance of constructed access and service roads, needed for repairs and maintenance. This in turn will have a minor positive impact on owner's access to their plots of land.

The water supply, sewage and electricity supply will be secured locally and there will be no impacts on community infrastructure.

5.2.6 Mitigation

5.2.6.1 Employment and Procurement Opportunities

As for construction related employment, the contracting of any individuals for the operation of the wind farm will follow principles of international best practice. To foster the creation of indirect employment opportunities, the Project will continue to procure goods and services locally whenever possible.

5.2.6.2 Revenue Generation

Green Gvozd will ensure that all payments of taxes and fees to the municipality and the state are made in a timely and transparent manner.

A possible impact of the Project includes enhanced tourism opportunities for the municipality. If such opportunities do present themselves, Green Gvozd may decide to support some tourism related or educational initiatives through a community investment programme.

5.2.6.3 Infrastructure

Regular maintenance of access tracks will be carried out to contribute to improved access to surrounding plots of land.

5.2.7 Residual Effects

If Green Gvozd presence in Nikšić attracts other investments or if the project triggers tourism development, a further effect will be local economic development.



5.3 Monitoring and Follow Up

Grievance management (both community and workers' grievances) needs to be monitored to ensure that all received complaints are addressed as described in the Project SEP.

Complaints and grievances submitted through the Project grievance mechanism will also be regularly monitored, to alert Green Gvozd of any problems or issues that need to be dealt with, on an individual or community level.

5.4 Limitations and Assumptions

The key assumptions that have been made and any limitations that have been identified, in producing this report are set out below.

- Third party data that has been supplied to the consultants regarding land acquisition, employment estimates, etc. is complete and accurate;
- The principal land uses in the surrounding area will remain unchanged;
- The scheme description will be as outlined in section 'Project Description;
- The most recent official statistical data available in Montenegro dates back from 2011. In addition, a lot of the census data is only available at the state level and to a much lesser degree at the level of the municipality Nikšić. Where possible data specifically relating to the affected municipality was sought from other sources i.e. municipal studies, plans or interviews with stakeholders, etc.
- The mitigation and enhancement measures stipulated in this chapter will be implemented as appropriate.

5.5 Cumulative Impacts

Despite the nearby existing Krnovo windfarm, it is not expected that there will be any negative cumulative socio economic effects as a result of the proposed Project.

6 References

Local Study for the Location 'Gvozd', Nikšić (2018), Agency for Project Design and Planning, Nikšić municipality

Report on the Process of Preparation of Environmental and Social Impact Assessment Studies for the Project Gvozd Windfarm, IVICOM and LINK 011, April 2019



Draft Environmental Impact Assessment for the Construction of the Gvozd Wndfarm in Nikšić municipality, Institute for Development and Research in the Area of Labour Health and Safety (Ecology Sector), April 2019

Strategic Development Plan of the municipality Nikšić for the period 2014 to 2019, March 2014

municipality of Nikšić, official website available at: http://Nikšić.me

MONSTAT (Statistical Office of Montenegro), official website available at: https://www.monstat.org

Employment Agency of Montenegro, official website available at: http://www.zzzcg.me

Example contracts for land acquisition (lease and purchase) provided by Green Gvozd

Contract between Green Gvozd and Nikšić municipality for land acquisition and construction of access roads, signed on 07.12.2016.