



Standards for a
Sustainable Future

NINGXIA XIANGSHAN WIND FARM PROJECT

Document Prepared By Beijing Cronus Technology Counsultancy Centre

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| Project Title | Ningxia Xiangshan Wind Farm Project |
| Project ID | 1867 |
| Project Start Date | 15-04-2017 |
| SD Contributions Reporting Period | 15-04-2017 to 31-12-2020 during which the project contributed to the default sustainable development criteria (i.e., to the SDG Targets) |
| Date of Issue | 04-10-2021 |
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1 SUMMARY OF SUSTAINABLE DEVELOPMENT CONTRIBUTIONS

- A summary description of project activities (i.e., technologies/measures implemented, project location).

Ningxia Xiangshan Wind farm Project (hereafter referred to as the Project) is located in Zhongwei City, Ningxia Hui Autonomous Region, People's Republic of China.

The project has a total installed capacity of 397.5MW. The power generated by the project is delivered to the Northwest Power Grid (NWPG) to replace equivalent amount of electricity that would have otherwise been generated by other fossil fuel power plants. The project operated normally without overhaul the past several years.

- *An explanation of how project activities will result in the sustainable development (SD) contributions described in Section 2 of this report.*

Explanation for SDG1.2, SDG4.3, SDG8.5 :

According to China's regulation, China's poverty line in the year of 2011 is 2300RMB/yr¹, in 2020 is 4000RMB/yr².

The project provides 65 job opportunities during this monitoring period, and the annual salary is larger than 4000RMB/yr, which means at least 65 families' life are greatly improved, reducing the proportion of people living in poverty.

All the employees are trained on vocational skills and have satisfactory salary.

Explanation for SDG7.2: The project uses renewable wind resources to generate electricity. The project has an installed capacity of 397.5MW consisting of 265 wind turbines with unit capacity of 1,500kW. The annual power delivered to the grid is 948,633.8 MWh on average.

Explanation for SDG13: The scenario prior to the start of the implementation of the project activity is that the same electricity was generated by the operation of power plants connected to NWPG which is mainly composed of fossil fuel power plants. The project uses wind to generate electricity, which is zero CO₂ emissions. Therefore, the project could reduce CO₂ emissions.

¹ http://www.cpad.gov.cn/art/2015/10/16/art_747_24704.html

² <https://www.gpbctv.com/jrrd/202104/159842.html>

2 PROJECT CONTRIBUTIONS

Table 1 : Sustainable Development Contributions

| Row number | SDG Target | SDG Indicator | Net Impact on SDG Indicator | Current Project Contributions | Contributions Over Project Lifetime |
|------------|------------|--|------------------------------------|--|---|
| 1) | 1.2 | SDG Indicator 1.2.2: Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions | Implemented activities to decrease | <p>According to China's regulation, China's poverty line in the year of 2011 is 2300RMB/yr³, in 2020 is 4000RMB/yr⁴.</p> <p>The project provides 65 stable job opportunities during this monitoring period, and the annual salary is larger than 4000RMB/yr. In absence of the project, the employees for the project would have otherwise been unemployed or work in other company with lower salary. This could be demonstrated by the picture 1 of appendix 1. This project makes the 65 families' life are greatly improved.</p> | In the project lifetime (from 15/4/2017 to 31/12/2020), the project provides about 65 stable job opportunities to local people in the previous operation years, and give local people additional income from low and unstable income to 97,000CNY/year. |
| 2) | 4.3 | SDG Indicator 4.3.1: Participation rate of youth and adults in formal and | Implemented activities to increase | In order to make the 65 employees more professional and guarantee safe operation, the project provides tranings for the employees each year on professional knowledge of | In the project lifetime (from 15/4/2017 to 31/12/2020), at least 3 or 4 times of tranings on technical knowledge, management and safty production are conducted for the 65 employees |

³ http://www.cpad.gov.cn/art/2015/10/16/art_747_24704.html

⁴ <https://www.gpbctv.com/jrrd/202104/159842.html>

| | | | | | |
|----|------|--|------------------------------------|---|---|
| | | non-formal education and training in the previous 12 months, by sex | | <p>production, safety rules, and management knowledge.</p> <p>During this monitoring period, the project owner provides at least 10 times trainings for all the employees (65), both men and women. This is not only good for the project itself, but also beneficial for the workers themselves, as the people are well trained for the lifelong knowledge.</p> <p>These training activities are consistent with SDG indicator 4.3.1, which refers to participation of education and training.</p> | each year. |
| 3) | 7.2 | SDG Indicator 7.2.1: Renewable energy share in the total final energy consumption | Implemented activities to increase | <p>The project utilizes wind for electricity generation, which could increase the ratio of renewable energy in total energy consumption of China.</p> <p>From 15/04/2017 31/12/2020, the the exported electricity by this project is 3,831,375MWh.</p> | In the project lifetime (from 15/4/2017 to 31/12/2020), the electricity exported by the project is 3,831,375MWh. |
| 4) | 8.5 | SDG Indicator 8.5.1: Average hourly earnings of employees, by sex, age, occupation and persons with disabilities | Implemented activities to increase | <p>In absence of the project, all the 65 employees either do not have stable jobs or work in other company with lower salary, which could be demonstrated by picture of appendix 1. The project provides hourly earnings for 48 CNY/person/hour, which contributes to SDG indicator 8.5.1</p> | In the project lifetime(from 15/4/2017 to 31/12/2020), the project provides 65 job opportunities and the average hourly earnings that the project provided are 48 CNY/person//hour. |
| 5) | 13.0 | User defined indicator: Tonnes of greenhouse gas emissions avoided or removed | Implemented activities to increase | <p>The project could export 948633.8MWh to national power grid, and could reduce 727,982tCOe emissions each year.</p> <p>From 15/4/2017 to 31/12/2020,</p> | In the project lifetime (from 15/4/2017 to 31/12/2020), the total emission reductions would be 2,940,551tCO ₂ by estimation. |

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|--|--|--|--|---|--|
| | | | | the total emission reductions of this project are 2,940,551tCO ₂ . | |
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APPENDIX 1: SUPPORTING EVIDENCE

Evidence for SDG1.2, SDG 5.1, SDG8.5:

As a large scale wind company, it requires about 65 qualified people to operate and maintain the project. At the same time, this will bring great benefits for local people.

On one hand, this project provides a decent job for local people. Compared with other kind of jobs, the environment of wind company is clean, and the salary is higher than other conventional jobs of local area. Ningxia province is located in Northeast of China, which is very poor due to the dry weather and inconvenient transportation. So, this job is attractive and the payment would improve their lives.

As a state-owned enterprise with good local economic benefits, the wage income of the enterprise is very attractive in local area, especially the operation and maintenance and professionalism required in the operation of the wind power plant project do not involve heavy manual work, which is more suitable for female employees.

At the beginning of construction of the wind farm, it promised to the local government that it would resettle some unemployed people for employment and solve the local idle labor problem. Some female employees entered the enterprise from the original enterprise because of the good economic benefits of the enterprise.

At present, the enterprise has 65 employees. Among 52 male employees, 30 did not have a regular job before, and 22 worked in other companies that were not profitable. There were 13 female employees, among them, 9 female employees did not work before and are nearby residents, and the other 4 enter the enterprise from other low-income enterprises after the completion of the project.

This can be demonstrated in following explanation.

说 明

本企业作为当地经济效益较好的国有企业，工资收入在当地非常具有吸引力，尤其是风电厂项目运营过程中所需要的运营维护和专业不涉及重体力工作，比较适合女性职工。

本风电场在建设之初，就曾向当地政府承诺，要安置部分未就业人员进行就业，解决当地的闲置劳动力问题。

有部分女员工都是因为本企业经济效益好，从原有企业进入的本企业。

目前企业有员工 65 人，女员工 13 人，其中有 9 名女员工之前没有工作，为附近的居民，另外 4 人则是项目建成后从其他企业进入本企业。

特此说明。



Picture 1. Explanation of employee's working status before entering the company

On the other hand, with the construction of the project, the road around the power plant was constructed, thus transportation for local area was also improved. This would also indirectly improve local economic development.

The employee list is shown as follows

2019年宁夏香山风电场工资单

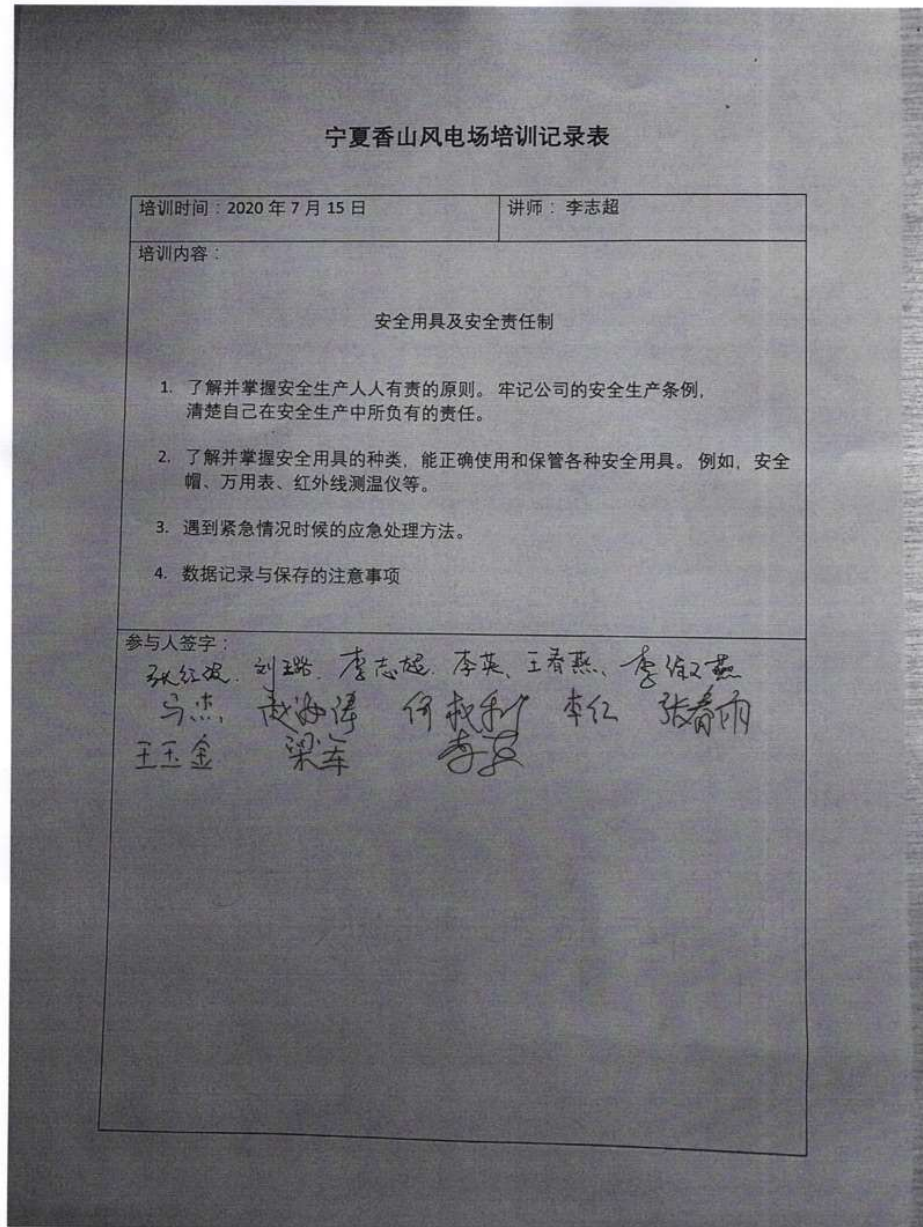
| 序号 | 姓名 | 性别 | 工资 (元/年) |
|----|-----|----|----------|
| 1 | 张红波 | 男 | 110935 |
| 2 | 刘璐 | 男 | 110935 |
| 3 | 李志超 | 男 | 110935 |
| 4 | 李英 | 女 | 110935 |
| 5 | 王春燕 | 女 | 110935 |
| 6 | 李淑燕 | 女 | 110935 |
| 7 | 裴丽丽 | 女 | 110935 |
| 8 | 徐迎华 | 女 | 110935 |
| 9 | 徐艳玲 | 女 | 109835 |
| 10 | 乔振东 | 男 | 109835 |
| 11 | 唐桂英 | 女 | 109835 |
| 12 | 丁超 | 女 | 109835 |
| 13 | 刘红宇 | 男 | 109835 |
| 14 | 周际 | 男 | 109835 |
| 15 | 王悦 | 女 | 109835 |
| 16 | 马红军 | 男 | 109835 |
| 17 | 肖红伟 | 男 | 109835 |
| 18 | 周彦明 | 男 | 109835 |
| 19 | 董秀文 | 男 | 107305 |
| 20 | 杨利 | 男 | 107305 |
| 21 | 邹文利 | 男 | 107305 |
| 22 | 胡萍萍 | 女 | 107305 |
| 23 | 薛金英 | 女 | 107305 |
| 24 | 李宏有 | 男 | 107305 |
| 25 | 李杰 | 男 | 107305 |
| 26 | 刘立文 | 男 | 107305 |
| 27 | 李军 | 男 | 107305 |
| 28 | 陈向义 | 男 | 107305 |
| 29 | 陈文富 | 男 | 107305 |
| 30 | 张成龙 | 男 | 107305 |
| 31 | 孟祥兵 | 男 | 107305 |
| 32 | 刘野 | 男 | 107305 |
| 33 | 陈宝成 | 男 | 107305 |
| 34 | 师立志 | 男 | 107305 |
| 35 | 朱照东 | 男 | 106568 |
| 36 | 李晓东 | 男 | 106568 |
| 37 | 殷海龙 | 男 | 106568 |
| 38 | 宁宽 | 男 | 106568 |
| 39 | 李学义 | 男 | 106568 |
| 40 | 陈斌 | 男 | 106568 |

| | | | |
|----|-----|---|--------|
| 41 | 张春雨 | 女 | 106568 |
| 42 | 李红 | 男 | 106568 |
| 43 | 殷学文 | 男 | 106568 |
| 44 | 徐记华 | 男 | 106568 |
| 45 | 刘博 | 男 | 106568 |
| 46 | 王智 | 男 | 106568 |
| 47 | 马越 | 男 | 106568 |
| 48 | 朱国 | 男 | 104335 |
| 49 | 李帅 | 男 | 104335 |
| 50 | 赵海涛 | 男 | 104335 |
| 51 | 何权利 | 男 | 104335 |
| 52 | 谢广志 | 男 | 104335 |
| 53 | 梁军 | 男 | 104335 |
| 54 | 马越涛 | 男 | 104335 |
| 55 | 刘志 | 男 | 104335 |
| 56 | 孙军 | 男 | 104335 |
| 57 | 王平 | 男 | 104335 |
| 58 | 姚夏 | 男 | 99495 |
| 59 | 李军 | 男 | 99495 |
| 60 | 马杰 | 男 | 99495 |
| 61 | 米淑兰 | 女 | 99495 |
| 62 | 张海 | 男 | 99495 |
| 63 | 王玉金 | 男 | 99495 |
| 64 | 杨阳 | 男 | 95480 |
| 65 | 赵明 | 男 | 95480 |

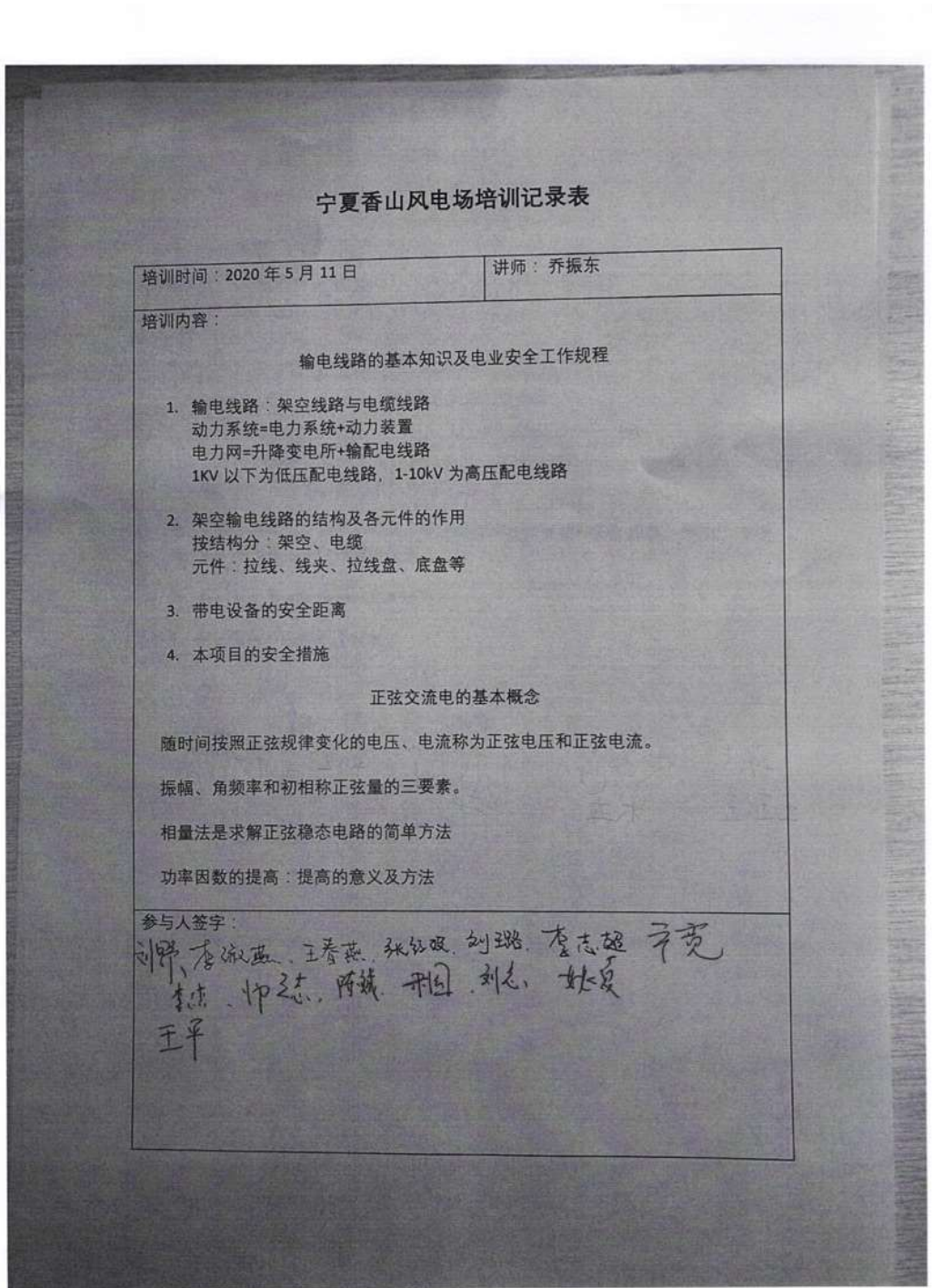
宁夏中卫铝业新能源有限公司
 2020年4月8日

Picture 2. Employee list and Salary in year 2019

Evidence for SDG4.3



Picture 3. Training in May of 2020



Picture 4. Training in July of 2020

Evidence for SDG4.7:



Picture 5. Primary school students visited the Ningxia Xiangshan Wind Power Plant



Picture 6. Environment protection training for middle school students



Picture 7. Condolences to elder people



Picture 8. Donation to medical personnel through red cross

Evidence for SDG7.2, SDG12.8, SDG13.0:

The project has been registered as a VCS project and the emission reductions from 2017 to 2019 have been verified and issued. This can well demonstrate the authenticity, availability and accuracy of the project.

The evidences for the installed capacity, electricity generation, and annual emission reductions were validated and verified by qualified third party, and the validation and verification report can be referenced in verra website: <https://registry.verra.org/app/projectDetail/VCS/1867>