

TESLA & MORE

Electric Vehicle Investigative Report II



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ELECTRIC VEHICLE INVESTIGATIVE

REPORT II

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PREFACE

In April 2021, the Institute of Public and Environmental Affairs (hereinafter referred to as IPE) and Lvse Jiangnan Public Environment Concerned Centre (hereinafter referred to as Lvse Jiangnan) released the *Pollution under the Low Carbon Halo: Electric Vehicle Investigative Report I*, which highlighted that Tesla has yet to extend environmental management to its supply chain in China.

After four months, Tesla still remained silent to the inquiries from environmental organizations as well as the inquiries and reports from the media.



Image source: 2019 Tesla Impact Report

In view of Tesla's silence and avoidance of its supply chain environmental pollution, IPE and Lvse Jiangnan have further investigated the environmental performance of Tesla's suppliers in China through desk research and field visits.

In addition to the lithium battery, aluminum alloy die-casting, chassis parts, interior and exterior parts mentioned in the first report, it was found that other suspected suppliers of Tesla's auto parts production chain also have environmental problems, and are posing threats to the environment and ecology.

AUTOMOBILE PARTS AND INTERIOR AND EXTERIOR TRIM

1. Automobile parts suppliers in the Bohai Bay repeatedly exceeded the discharge standards

The listed company Beijing WKW Automotive Parts Co., Ltd. (hereinafter referred to as Jingwei, stock code: 002662), stated in its 2020 annual report that it was engaged in auto parts and interior and exterior trim parts production, and its products were applicable to all kinds of medium and high-end passenger cars (traditional and new energy)¹. In the interactive Q&A session of the 2020 reception day for investors of listed companies in Beijing², Jingwei clearly mentioned that it was a supplier of Tesla.

According to the investigation, one wholly-owned subsidiary and two joint ventures of Jingwei³ located in Qinhuangdao **had different degrees of environmental violations in the past three years:**

1) Qinhuangdao BIA Automotive Parts Co., Ltd.

On January 29, 2021, Qinhuangdao BIA Automotive Parts Co., Ltd. was fined RMB 480,167.58 by the Qinhuangdao Municipal Bureau of Ecology and Environment for polluting the water bodies of the tributaries of Daihe River (Qinhuan Penalty [2021] 0003).

According to the Administrative Penalty Decision issued by Qinhuangdao Municipal Bureau of Ecology and Environment on April 15, 2020 (Qinhuan Penalty [2020] No. 0005)⁴, the company was fined **a total of RMB 1.18 million** in 2020 for "1. Failure to start emergency plan in time; 2. Failure to disclose information on toxic and harmful water pollutants; 3. Failure to install online monitoring facilities and to set main valve at the plant's rainwater discharge and sewage discharge" and other environmental violations.

¹ <http://static.cninfo.com.cn/finalpage/2021-03-27/1209463067.PDF>

(All links in this report were accessed on 26 August 2021)

² <https://rs.p5w.net/html/123188.shtml>

³ <http://static.cninfo.com.cn/finalpage/2021-03-27/1209463067.PDF>

⁴ <http://www.en.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=11964853&dataType=0&isyh=0&showtype=0>

As the Daihe River flows into the sea via the Beidaihe River, the “failure to disclose information on toxic and harmful water pollutants” stated on the Administrative Penalty Decision is of particular concern.

The National Enterprise Credit Information Publicity System shows that the company is located at No.1 Huanghai Road, Economic and Technological Development Zone, Qinhuangdao City, Hebei Province. According to the on-site research, **Daihe Ecological Park (Phase I) is located to the south of Qinhuangdao BIA Automotive Parts Co., Ltd. The water body in the Daihe Ecological Park is a tributary of the Daihe River, which enters the Bohai Sea via the Daihe River estuary.**

IPE and Lvse Jiangnan did not find any toxic and hazardous water pollution information disclosed by the Qinhuangdao BIA Automotive Parts Co., Ltd. during the site visit of the periphery and surroundings of No. 1 Huanghai Road, Qinhuangdao Economic and Technological Development Zone; nor did they find any water pollution information disclosed via the Internet.

2) Qinhuangdao WKW Automotive Parts Co., Ltd.

On June 30, 2021, the Department of Ecology and Environment of Hebei Province and the Hebei Development and Reform Commission issued the *Notice on the Compulsory Clean Production Audit in the Province in 2021*. Qinhuangdao WKW Automotive Parts Co., Ltd was listed among the first batch in the Notice with a note of “Double-exceedance”, and was required to conduct clean production audits accordingly⁵.

According to Article 8 of *The Administrative Procedures for Conducting Clean Production Audits*⁶, enterprises under any of the following circumstances shall conduct compulsory clean production audit:

- (1) Pollutant emissions exceed the national or local discharging standards, or not exceed the standards but exceed the total volume control targets for key pollutants;
- (2) Exceeds the limit of energy consumption per unit and constitutes high energy consumption;
- (3) Using toxic and harmful raw materials for production or discharging toxic and harmful substances in production.

It is indicated in the *Technical Guidelines for Clean Production Audit and Approval in Hebei Province (DB 13/T 1579-2021)* that “**Double-exceedance**” means the pollutant emission

⁵ <http://wwwwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=293553&dataType=0&isyh=0&showtype=0>

⁶ <http://www.mee.gov.cn/gkml/hbb/gwy/201611/W020161123607129054496.pdf>

concentration and the total discharge of key pollutants both exceed the national/local emission or control standards.

In addition, the Blue Map Database also shows that **the local resident filed complaints against the odor generated by the emission of waste gas** in November 2020. Qinhuangdao WKW Automotive Parts Co., Ltd. was subsequently required by Qinhuangdao Municipal Bureau of Ecology and Environment to rectify the exhaust gas collection and disposal system.

The company was also **criticized for a lack of standardized self-monitoring and qualified comparison of automatic monitoring equipment** by the Ministry of Ecology and Environment in 2019.⁷

However, in its 2019 annual report, Jingwei stated that, “the self-monitoring, including quarterly comparison monitoring of automatic monitoring equipment and annual monitoring of regular items of Qinhuangdao WKW Automotive Parts Co., Ltd. are commissioned to qualified third-party agencies, and the **monitoring results were all met the standards**”⁸. This statement is **inconsistent with the criticism from the Ministry of Ecology and Environment listed above**, and Jingwei has yet to disclose or explain the failure of automatic monitoring equipment comparison in 2019 of Qinhuangdao WKW Automotive Parts Co., Ltd.

Lastly, the Hebei Province Automatic Pollution Source Monitoring System of the Department of Ecology and Environment of Hebei Province⁹ shows, the hourly value of **nickel, one of the Class I pollutant listed in GB8978-1996**, in the automatic monitoring data of wastewater from Qinhuangdao WKW Automotive Parts Co., Ltd. exceeded the standard on March 16, March 17 and April 19, 2021, and there was no explanation released on the platform.

According to field research, the automatic monitoring data displayed on the electronic screen at the entrance of Qinhuangdao WKW Automotive Parts Co., Ltd. of each time period of the day did not change in two days from 28 to 29 July 2021, which failed to give timely disclosure of pollutant emission information to the public.

3) Qinhuangdao WKW Faurecia Automotive Interior Parts Co., Ltd.

The Blue Map Database shows, another joint venture of Jingwei Co., Ltd., Qinhuangdao WKW Faurecia Automotive Interior Parts Co., Ltd., was also punished by Qinhuangdao Municipal Ecology and Environment Bureau in December 2020 as: (1) its automatic monitoring machine had not been approved by the Municipal Ecology and Environment Bureau or connected to the Bureau platform, (2) failed to conduct quarterly comparative monitoring as required, (3) failed to conduct manual monitoring of COD, ammonia nitrogen and total

⁷ <http://wwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=293553&dataType=0&isyh=0&showtype=0>

⁸ <http://static.cninfo.com.cn/finalpage/2020-04-29/1207660438.PDF>

⁹ <https://automs-ps.hbeep.com.cn/loginPublic>

phosphorus discharged from the main wastewater discharge outlet (Qinhuan Penalty [2020] No. 0041).¹⁰

In addition, the enterprise had been imposed three administrative penalties by Qinhuangdao Municipal Ecology and Environment Bureau in 2019 (Qinhuan Penalty [2019] No. 8009, Qinhuan Penalty [2019] No. 80011, Qinhuan Penalty [2019] No. 8010)¹¹ with cumulative fines of RMB 750,000 as its automotive interior parts project (with an annual production capacity of 500,000 sets) was started without the approval of the EIA assessment, and the construction of supporting environmental protection facilities were put into use without acceptance.

Lastly, the automatic monitoring data of wastewater in 2021 showed that the enterprise had exceeded the hourly COD value on April 12 and April 24, and exceeded the hourly total phosphorus value on April 13, April 24, April 29, May 5 and May 18, and there was no explanation released on the platform.¹²

These three enterprises above are all located in the Qinhuangdao Economic and Technological Development Zone. According to the publicly disclosed EIA reports, the wastewater of Qinhuangdao WKW Automotive Parts Co., Ltd.¹³ and Qinhuangdao WKW Faurecia Automotive Interior Parts Co., Ltd.¹⁴ were discharged to Taisheng Qinhuangdao Water Works Co., Ltd. (Longhaidao Sewage Treatment Plant).

The Blue Map Database displays a total of 19 environmental violations¹⁵ of the Sewage Treatment Plant dated from 2014 to 2021. The most recent violation was an **excessive discharge of wastewater on March 8, 2021.**¹⁶

The influent water quality exceeding the standard is one of the common reasons for sewage treatment plants to exceed discharge standards. With Qinhuangdao WKW Automotive Parts Co., Ltd. listed as “Double-exceedance” and Qinhuangdao WKW Faurecia Automotive Interior Parts Co., Ltd. failed to conduct comparison monitoring, and both has exceeded the standard in automatic monitoring of hourly value of wastewater in 2021, there is an increased risk of influent water exceeding the standard at the Sewage Treatment Plant, thereby increasing the treatment pressure of the plant.

¹⁰ <http://wwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=10279785&dataType=0&isyh=0&showtype=0>

¹¹ <http://wwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=10279785&dataType=0&isyh=0&showtype=0>

¹² <https://automs-ps.hbeep.com.cn/loginPublic>

¹³ <http://sthj.qhd.gov.cn/home/details?code=NDAYOGFiODE2MzI5MTVjZDAxNjMyOTIxNzcyODAwNjc%ce%b3&id=1372>

¹⁴ <http://sthj.qhd.gov.cn/home/details?code=NDAYOGFiODE2MzI5MTVjZDAxNjMyOTIxNzcyODAwNjc%ce%b3&id=4098>

¹⁵ <http://wwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=127803&dataType=0&isyh=0&showtype=0>

¹⁶ <http://sthj.qhd.gov.cn/home/details?code=NDAYOGFiODE2MzI5MTVjZDAxNjMyOTIxNzcyODAwNjc%ce%b3&id=9137>

According to its 2020 self-monitoring report¹⁷ published on the official website of the Management Committee of Qinhuangdao Economic and Technological Development Zone, the Sewage Treatment Plant discharge its treated wastewater into the Xiaotang River for landscape use. **The Xiaotang River flows into the Bohai Sea via the Tang River estuary.**

In recent years, the protection of the ecological environment and resources of the Bohai Sea has received great attention, and the overall water environment has improved after vigorous treatment. However, as a nearly enclosed inland sea, the Bohai Sea has a slow exchange with other water bodies, and its self-purification capacity is very limited. The governance effect is therefore called to be carefully protected.

*The 2020 China Bulletin of Marine Ecology and Environment Status*¹⁸ shows that **the area of the Bohai Sea that does not meet the first class of seawater quality standards in 2020 is 13,490 square kilometers, an increase of 750 square kilometers compare to the last year.**

As the Ministry of Ecology and Environment explains in the *Notice on Further Standardizing the Environmental Management of Urban (park) Sewage Treatment*¹⁹ “enterprise who discharge via sewage treatment plants should prevent and reduce environmental pollution and ecological damage, apply for discharge permit in accordance with the relevant state regulations, discharge pollutants with and according to the permit, and be liable for the damage caused according to the law. First, industrial sewage shall be pretreated in accordance with relevant national regulations. **Class I pollutants listed in GB8978-1996 and other toxic and harmful pollutants specified in relevant standards shall be treated at the discharge outlet of workshop or workshop treatment facilities to meet the standard;** other pollutants can be discharged only after meeting the treatment process requirements of centralized treatment facilities. **Second, carry out self-monitoring in accordance with relevant technical specifications and law, disclose pollutant emission information, and accept supervision.”**

Article 24 of the *Law of the People’s Republic of China on Prevention and Control of Water Pollution* also explicitly mentioned that enterprises, institutions and other producers and operators who practice permit system of pollutant discharged should be responsible for the authenticity and accuracy of monitoring data.

Therefore, we suggest that Qinhuangdao WKW Automotive Parts Co., Ltd., Qinhuangdao WKW Faurecia Automotive Interior Parts Co., Ltd. and Qinhuangdao BIA Automotive Parts Co., Ltd. should disclose the types of water pollutants, emission limits and automatic wastewater

¹⁷ <http://www.getdz.gov.cn/Content/editor/cid/070303/id/136394.html>

¹⁸ <http://www.mee.gov.cn/hjzl/sthjzk/jagb/202105/P020210526318015796036.pdf>

¹⁹ http://www.mee.gov.cn/xxgk2018/xxgk/xxgk03/202012/t20201217_813570.html

monitoring data to the public in a prompt manner to ensure timely, authentic, accurate and complete information disclosure. Once the effluent exceeds the water collection standard of the sewage treatment plant, the enterprises should promptly rectify and disclose the rectification measures to the public, respond to public concerns by disclosing public explanations.

In addition to Tesla, Jingwei mentioned in the interactive Q&A session of the 2020 reception day for investors of listed companies in Beijing²⁰ that it was also the supplier of Xpeng Motors and Li Auto Inc²¹. Therefore, we call on Jingwei group's customers: Tesla, Xpeng and Li Auto to effectively extend their environmental management to supply chain and avoid the impact of supply chain pollution discharge on the regional water bodies and near-shore marine environment.

2. The suppliers of parts and interior and exterior trims have accumulated more than 100 violation records

The listed company Huayu Automotive Systems Company Limited (hereinafter referred to as HASCO, stock code: 600741) disclosed in its 2021 semi-annual report that the company supplied automotive interiors, seats, airbags, steering wheel, lighting, bumpers, tailgates, steering machines, drive shafts and other business to Tesla, NIO, Xpeng Motors and other EV brands.²²

According to the Blue Map Green Finance Database²³, the affiliated enterprises of HASCO have as many as **120 records of environmental violations**. These include:

(1) Huizhong Automotive Chassis System (Nanjing) Co., Ltd.²⁴: In July 2020 and January 2021, the enterprise was twice ordered rectification for its hazardous waste issues, including: no labels and incomplete information on phosphate slag drums in the hazardous waste warehouse, an abnormal increase of storage in the hazardous waste warehouse, no collection trenches are set up in the hazardous waste warehouse, and no self-testing was taken before the phosphate wastewater and electrophoresis wastewater being discharged into the sewage treatment station.

(2) Changshu Valeo Automotive Wiper System Co., Ltd.²⁵: In February 2021, the company was punished by Suzhou Ecological Environment Bureau for "failure to fill out and operate the

²⁰ <https://rs.p5w.net/html/123188.shtml>

²¹ <http://www.cninfo.com.cn/new/disclosure/stock?stockCode=002662&orgId=9900022144#interactiveQa>

²² <http://static.cninfo.com.cn/finalpage/2021-08-26/1210856078.PDF>

²³ <http://wwwen.ipe.org.cn/GreenSecurities/GreenFinance.html>

²⁴ <http://wwwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=567423&dataType=0&isyh=0&showtype=0>

²⁵ <http://wwwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=2224839&dataType=0>

hazardous waste transfer form in accordance with the relevant national regulations” (Suhuan Penalty [2021] 81 No. 031).

(3) Huayu Automotive Body Components Technology (Shanghai) Co., Ltd.^{26 27}: In July 2020, the company was punished by Shanghai Yangpu District Ecological Environment Bureau and fined RMB 200,000 for failing to complete EIA approval formalities for the operation of glue coating machine in the welding workshop and failing to equip exhaust gas treatment facilities for the coating process.

(4) Shanghai Sachs Huizhong Shock Absorber Co., Ltd.^{28 29}: In 2020, the company was imposed 4 times of administrative penalties by the Shanghai Minhang District Ecological Environment Bureau for violating the air pollution prevention and control regulations.²⁹

In addition to Tesla, NIO and Xpeng, HASCO disclosed in its 2020 report that it also supplied electric air conditioning and thermal management system to BYD EVs and electronic brake system to BAIC EVs.³⁰

POWERTRAIN SYSTEM

1. Battery casing supplier’s Beijing subsidiary receives 3 fines in 2021

The listed company Lingyun Industrial Corporation Limited (hereinafter referred to as Lingyun, stock code: 600480) disclosed in its 2020 annual report that its customers include Tesla and many other car companies.³¹

According to the Blue Map Database, Beijing Beifang Lingyun Mounting System Technology Co., Ltd., a subsidiary of Lingyun Co., Ltd., was imposed three consecutive penalties by the Beijing Huairou District Ecological Environment Bureau for: (1) ‘refinishing knocked off paint parts using bottled spraying paint but failing to install and use pollution prevention and control facilities in accordance with regulations’, (2) ‘ignoring to apply for transfer record from the administrative department of environmental protection in the transfer area as required’, and (3) ‘failing to keep the transfer record of transferred hazardous waste within five years as

²⁶ <http://static.cninfo.com.cn/finalpage/2021-03-25/1209444344.PDF>

²⁷ <http://www.ipe.org.cn/IndustryRecord/Regulatory-record.aspx?companyId=7767287&dataType=0&isyh=0&showtype=0>

²⁸ <http://static.cninfo.com.cn/finalpage/2021-03-25/1209444344.PDF>

²⁹ <http://www.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=577982&dataType=0>

³⁰ <http://static.cninfo.com.cn/finalpage/2021-03-25/1209444344.PDF>

³¹ <https://view.officeapps.live.com/op/view.aspx?src=http%3A%2F%2Fstatic.cninfo.com.cn%2Ffinalpage%2F2016-11-29%2F1202848635.DOCX>

the prescribed filing period. (HuaiHuan Penalty [2021] No. 19, HuaiHuan Penalty [2021] No. 20 and HuaiHuan Penalty [2021] No. 21).³²

Industrial coating is one of the important sources of VOCs. In recent years, the ozone concentration in Beijing-Tianjin-Hebei and its surrounding areas is on the rise and has become an important factor affecting air quality second only to PM_{2.5},³³ while volatile organic compounds (VOCs) are the common precursors of PM_{2.5} and O₃.

2. Suppliers of metal structural parts punished for excessive Class I pollutants

The listed company Dongshan Precision Manufacturing Co., Ltd. (hereinafter referred to as Dongshan Precision, stock code: 002384) responded to the investors in its Investor Relations Activity Record released on 28 November 2016 that it supplied Tesla with metal structural parts and other products.³⁴

According to the *Letter on Ready for Preparatory Work of Private Application of Dongshan Precision for Issuance Examination Committee Meeting*³⁵ submitted by Tianfeng Securities Co., Ltd. to the CSRC on April 30, 2020, the wholly owned subsidiary of Dongshan Precision- Suzhou Dongjiyuan Metal Technology Co., Ltd., was punished by Suzhou Ecological Environment Bureau in 2019 for excessive Class I pollutants of nickel.

In addition, according to the Blue Map Database, Dongshan Precision's wholly owned subsidiary - Yancheng Dongshan Precision Manufacturing Co., Ltd., was ordered rectification for environmental problems during the inspection conducted by the Yancheng Ecological Environment Bureau in June 2021.³⁶

ELECTRIC DRIVE SYSTEM

1. Exhaust gas leakage in soft magnetic workshop of magnetic materials suppliers

The listed company Hengdian Group DMEGC Magnetics Co., Ltd. (hereinafter referred to as Hengdian Group DMEGC Magnetics, stock code: 002056) stated in the 2020 report that it was Tesla's magnetic material supplier.³⁷

According to the Blue Map Database, on June 6, 2021, Yibin Jinchuan Electronics Co., Ltd., a subsidiary of Hengdian Group DMEGC Magnetics, was found with exhaust gas leakage in its

³² <http://www.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=168682&dataType=0>

³³ <http://www.nbd.com.cn/articles/2021-02-25/1636431.html>

³⁴ <https://view.officeapps.live.com/op/view.aspx?src=http%3A%2F%2Fstatic.cninfo.com.cn%2Ffinalpage%2F2016-11-29%2F1202848635.DOCX>

³⁵ <http://notice.10jqka.com.cn/api/pdf/9b628a20dc996fd3.pdf>

³⁶ <http://www.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=9160237&dataType=0&isyh=0&showtype=0>

³⁷ <http://static.cninfo.com.cn/finalpage/2021-03-12/1209370738.PDF>

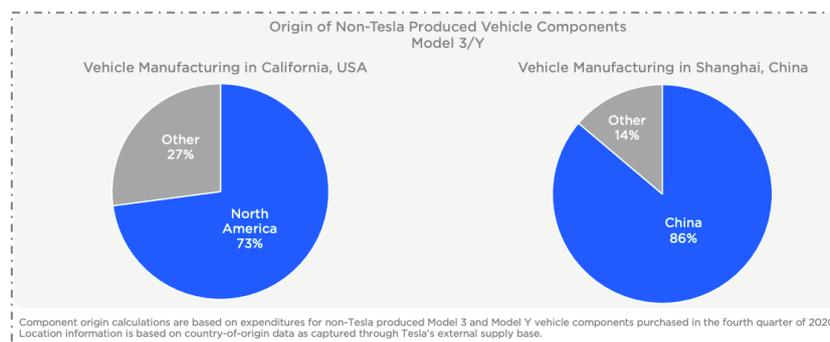
soft magnetic workshop. The Comprehensive Administrative Law Enforcement Detachment of ecological environment protection in Yibin City concluded that, the exhaust fan at the rear end of the bag filter failed to operate normally, and the company did not immediately take necessary measures to reduce or eliminate the harm, nor did it report to the competent ecological and environmental authorities.³⁸

The 2020 air quality ranking of Sichuan Province released by the People’s Government of Sichuan Province shows that Yibin City ranks 18th among the 21 prefectural units in Sichuan in the 2020 air quality composite index and 19th in PM_{2.5}.³⁹ The latest ranking of surface water and ambient air quality of Sichuan Province for 2021 published by the Department of Ecology and Environment of Sichuan Province shows that from January to May 2021, among the 15 key cities in the province, Yibin City is still included in the bottom 3 with worse air quality.⁴⁰

Industrial exhaust is the main source of air pollutants. If the enterprise fails to guarantee the normal operation of environmental protection facilities, resulting in exhaust gas leakage, it may adversely affect local air pollution control.

➤ **Summary**

According to 2020 Tesla Impact Report⁴¹, based on the supply chain localization strategy, 86% of Tesla Shanghai factory’s suppliers come from China.



Imagine source : 2020 Tesla Impact Report

According to the two investigative reports drafted by IPE and Lvse Jiangnan, Tesla’s battery materials, magnetic materials, aluminum alloy materials, interior and exterior trim parts, components, and abrasives suppliers in China have all had environmental violations recently. Thus, it can be seen that Tesla’s supply chain environmental management is far from fulfilling its public commitment published on its official website.

³⁸ <http://wwwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=12929305&dataType=0>
³⁹ <http://www.sc.gov.cn/10462/10464/10465/10574/2021/2/7/9ee215d1f0224b0cae33ec31a8c2522d.shtml>
⁴⁰ <http://sthjt.sc.gov.cn/sthjt/c103944/2021/7/5/d38fe250153b4bcf8e1e3682c8684d90.shtml>
⁴¹ https://www.tesla.com/ns_videos/2020-tesla-impact-report.pdf

C. ENVIRONMENT

Suppliers recognize that environmental responsibility is integral to producing world-class products. Suppliers shall identify the environmental impacts and minimize adverse effects on the community, environment, and natural resources within their manufacturing operations, while safeguarding the health and safety of the public. Recognized management systems such as ISO14001 and the Eco Management and Audit System (EMAS) were used as references in preparing the Code and may be a useful source of additional information. Relevant environmental standards to be followed are:

Imagine source : Tesla's Supplier Code of Conduct ⁴²

Moreover, Tesla continued its silence, not responding to yet another email sent by IPE and Lvse Jiangnan on August 16, 2021.

UPSTREAM SUPPLIERS PERFORM BETTER THAN TESLA & OTHER EV MAKERS

This year, the new domestic carmakers have stepped up their pursuit, with the “Top three” - NIO, Li Auto and Xpeng - gradually narrowing the gap against Tesla in terms of total sales volume. The “carbon peak” and “carbon neutral” targets have triggered a wave of transformation in the auto industry, promoting faster development of EVs industry.⁴³

IPE and Lvse Jiangnan found out in the investigation that the auto parts enterprises mentioned in this report are not only suppliers to Tesla, but also suppliers to other EV enterprises, including Xpeng, Li Auto, NIO, BAIC and BYD Auto. Environmental organizations have sent letters to the above five automobile enterprises on the environmental management of suppliers, calling on them to pay attention to the environmental violations along their supply chain.

While Tesla and other EV enterprises avoid their supply chain environmental problems, the upstream suppliers of several EV enterprises have begun to take positive actions. In response to the past environmental problems, they have taken and disclosed rectification measures, and actively fulfilled the primary responsibility of environmental protection.

Among them, Guangdong Fangyuan Environment Co., Ltd.⁴⁴, Jiangxi Ganfeng Lithium Co., Ltd.⁴⁵ and Quzhou Huayou Cobalt New Material Co., Ltd.⁴⁶ in the lithium battery industry

⁴² <https://www.tesla.com/sites/default/files/about/legal/tesla-supplier-code-of-conduct.pdf>

⁴³ http://www.xinhuanet.com/fortune/2021-07/05/c_1127622046.htm

⁴⁴ <http://www.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=76053&dataType=0&isyh=0&showtype=0>

⁴⁵ <http://www.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=216540&dataType=0&isyh=0&showtype=0>

⁴⁶ <http://www.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=284199&dataType=0&isyh=0&showtype=0>

chains; WUS PRINTED CIRCUIT (KUNSHAN) CO., LTD.⁴⁷ in the battery management system industry chain; Beijing Zhong Ke San Huan High-Tech Co., Ltd.⁴⁸ in the electric drive industry chain; National Center for Advanced Packaging Co., Ltd. (NCAP China)⁴⁹ in the field of integrated circuit; Guangdong Everwin Precision Technology Co., Ltd. and its Dalang Branch⁵⁰, the supplier of automobile connector and module; and Suzhou Dongshan Precision Manufacturing Co., Ltd. Gaoxin Branch⁵¹ in the field of battery thermal management, have all publicly issued explanations regarding their previous environmental violations and disclosed rectification documents via the Blue Map website.

In addition to disclosing the rectification data, WUS PRINTED CIRCUIT (KUNSHAN) CO., LTD. also actively disclosed its pollutant release and transfer and greenhouse gas emissions data for seven consecutive years (2014 – 2020).

According to 2020 Tesla Impact Report, Guangdong Fangyuan Environment Co., Ltd. (China) and Quzhou Huayou Cobalt New Material Co., Ltd. (China) have been included in the list of cobalt suppliers.⁵² In contrast to these suppliers who have responded to public concerns and disclosed corrective information,⁵³ Tesla’s avoidance and silence make it disputable whether it has achieved its environmental commitments.

Battery Supply Chain	Cobalt Miner & Refiner		
	Sourced from DRC	Supplier	RMI Classification*
Gigafactory Nevada and Fremont external cell sourcing	Yes	Umicore Finland Oy (Finland)	Conformant
	No	Murrin Murrin Nickel Cobalt Plant (Australia)	Conformant
	No	Norilsk Nickel Harjavalta Oy (Finland)	Active
	No	Harima Refinery, Sumitomo Metal Mining (Japan)	Conformant
	No	Sumitomo Metal Mining (Japan)	Active
Gigafactory Shanghai	No	Guandong Fangyuan Environment Co. Ltd. (China)	Not Listed
	Yes	Kamoto Copper Company (DRC)	Conformant
Fremont in-house cell production	Yes	Guizhou CNGR Resource Recycling Industry Development Co., Ltd. (China)	Active
	Yes	Kamoto Copper Company (DRC)	Conformant
	Yes	Quzhou Huayou Cobalt New Material Co., Ltd. (China)	Active

Imagine source : 2020 Tesla Impact Report

In addition to the positive responses of some suppliers, traditional automobile enterprises such as Toyota and Honda are gradually improving the level of environmental management and environmental information disclosure of their supply chains in the process of transformation to EVs. Both of them use big data and automated systems to track suppliers’

⁴⁷ <http://www.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=11675528&dataType=2&selfdata=536870912&isyh=0>

⁴⁸ <https://www.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=60006&dataType=0&isyh=0&showtype=0>

⁴⁹ <http://www.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=162564&dataType=0>

⁵⁰ <http://www.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=143166&dataType=2&selfdata=1073741824&isyh=0>

⁵¹ <http://www.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=1165596&dataType=2&selfdata=1073741824&isyh=0>

⁵² https://www.tesla.com/ns_videos/2020-tesla-impact-report.pdf

⁵³ See footnote 44 and 46

environmental performance in real time, and require suppliers with environmental violations to take rectification measures and publicly disclose rectification proof, so as to show the environmental management results of their supply chain to all stakeholders in a more open and transparent manner.

CONCLUSION AND SUGGESTIONS

On July 19, 2021, the Chinese Association of Science and Technology in the third quarter press conference revealed that by the end of June 2021, China had 6.03 million EVs. The Assistant Secretary-General of China Society of Automotive Engineering further explained that China has accounted for half of the world's EV ownership over at least three consecutive years.⁵⁴

As environmental protection organizations, IPE and Lvse Jiangnan highly recognize the possible role of EVs in fighting the climate change, and hope that the EV industry can develop rapidly. However, the two investigative reports on the supply chain industry of EV⁵⁵ indicate that the supply chain of EVs is still deficient in environmental protection, and strict environmental compliance cannot be guaranteed.

Tesla's advanced position in the EV industry is undeniable, and its market share remains dominant. We had expected to see Tesla assume the responsibility of an industry leader in terms of environmental responsibility, to fulfill its commitment to environmental management, to guide and urge suppliers to fulfill their primary responsibility for environmental protection through effective environmental management of supply chain and environmental information disclosure, to enhance suppliers' environmental awareness and environmental management capabilities, and to provide stakeholders with comprehensive and accurate environmental information so that the market can play the role of allocating environmental resources effectively.

Regrettably, however, instead of playing a positive role, Tesla has repeatedly refused to confront the environmental violations in its supply chain in China in an extremely arrogant manner. As an industry leader and a large export brand, this would not only pose a direct

⁵⁴ https://www.cenews.com.cn/company/202108/t20210812_979996.html

⁵⁵ http://www.ipe.org.cn/reports/report_21159.html

ecological and health risk, but would greatly hinder the overall improvement of environmental performance in an industry that is expanding vigorously.

We call on Tesla, and Tesla's peers such as Xpeng, Li Auto, NIO, BAIC and BYD Auto, and other EV companies to make up for the significant shortcomings in environmental management. In which, the first step is to follow up with the environmental noncompliance of the supply chain pollution and promote effective explanation and disclosure.

Corporate environmental information disclosure is pioneered by European and American enterprises, and relevant systems have been established. It not only safeguards the public's right to know and promotes public supervision, but also strengthens enterprises' awareness of environmental protection, improves their environmental management, promotes green transformation development, and enhances the autonomy and enthusiasm of greenhouse gas and pollutant emissions reduction. Implementing environmental information disclosure is not only a social responsibility of enterprises, but also an important means to eliminate market failures caused by information asymmetry. While bringing the role of public supervision into play and urging enterprises to fulfill their main responsibility for environmental protection, it also guides and helps consumers to make green choices.⁵⁶

As of August 2021, 64 brands have used the [Blue EcoChain tool](#) developed by IPE to track the environmental compliance of their suppliers in China in real time, and require suppliers to disclose the proofs of rectification after environmental violations and accept public supervision.

In just the four months since the first investigative report on environmental problems of EVs was published, 481 enterprises, driven by their brand customers, have made public statements on their past environmental problems and rectifications.

We hope to see EV brands, known for innovation and change, to also guide their direct suppliers, and drive the entire industry chain, towards a more sustainable and responsible development. We expect to see them make energy saving cars for consumers, as well as making cars in energy saving manufacturing process so as to effectively reduce, recycle and reuse in the scrapping process, and to promote the green transformation in the whole life cycle of the automotive industry.

⁵⁶ http://www.mee.gov.cn/zcwj/zcid/202106/t20210601_835692.shtml

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Appendix. Environmental Violations of Tesla’s Suspected Suppliers*

Category	Supplier abbreviation	Corporate or subsidiary name	Year of violation	Violation type
Auto parts and interiors	Jingwei	Qinhuangdao BIA Automotive Parts Co., Ltd. ⁵⁷	2020	Water pollution in tributaries of Dai River
			2020	Failure to start emergency plan in time; failure to disclose information on toxic and harmful water pollutants; failure to install online monitoring facilities; failure to set main valve at the plant’s rainwater discharge and sewage discharge
		Qinhuangdao WKW Faurecia Automotive Interior Parts Co., Ltd. ⁵⁸	2020	Wastewater monitoring equipment without approval or connection to local bureau website, failure to conduct quarterly comparison monitoring as required
			2019	Environmental protection facilities have been put into use without approval
		Qinhuangdao WKW Automotive Parts Co., Ltd. ⁵⁹	2021	Listed in the mandatory clean production audit
			2020	Fugitive emissions and incomplete collection of exhaust gas at a few spots in the workshop
			2019	The automatic monitoring equipment is not qualified for comparison monitoring
Wuxi BIA Automotive Parts Co., Ltd. ⁶⁰	2018	Began construction prior to approval is granted		
Auto parts	HASCO	Changshu Valeo Automotive Wiper System Co., Ltd. ⁶¹	2021	Failure to fill out and operate the hazardous waste transfer form in accordance with the relevant national regulations
		Huayu Automotive Body Components Technology (Shanghai) Co., Ltd. ⁶²	2020	Failure to complete EIA approval formalities for the operation of glue coating machine in the welding workshop; failure to equip waste gas treatment facilities for the coating process.

⁵⁷ <http://wwwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=11964853&dataType=0&isyh=0&showtype=0>

⁵⁸ <http://wwwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=10279785&dataType=0&isyh=0&showtype=0>

⁵⁹ <http://wwwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=293553&dataType=0&isyh=0&showtype=0>

⁶⁰ <http://wwwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=14076392&dataType=0&isyh=0&showtype=0>

⁶¹ <http://wwwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=2224839&dataType=0&isyh=0&showtype=0>

⁶² <http://wwwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=7767287&dataType=0&isyh=0&showtype=0>

		Shanghai Sachs Huizhong Shock Absorber Co., Ltd. ⁶³	2020	Violation of the Air Pollution Prevention and Control Regulation
Auto parts	Huada	Guangzhou Jinghua Automobile Parts Manufacturing Co., Ltd. ⁶⁴	2019	Install equipment without authorization and failure to complete approval procedures according to law
Battery shell	Lingyun	Beijing Beifang Lingyun Mounting System Technology Co., Ltd. ⁶⁵	2021	Failure to install and use pollution prevention and control facilities as required during the paint replenishment
Structural metals	Dongshan Precision	Suzhou Dongjiyuan Metal Technology Co., Ltd. ⁶⁶	2019	Excessive Class I pollutants of nickel
		Yancheng Dongshan Precision Manufacturing Co., Ltd. ⁶⁷	2021	Ordered rectification for environmental problems
Magnetic material	Hengdian Group DMEGC Magnetics	Yibin Jinchuan Electronics Co., Ltd. ⁶⁸	2021	Exhaust gas leakage due to improper operation of environmental protection facilities
Magnetic material	Zhong Ke San Huan	SANVAC (Beijing) Magnetics Co., Ltd. ⁶⁹	2018	Violation of the Law on the Prevention and Control of Atmospheric Pollution

***The parent companies of the suppliers in the list have disclosed through public channels that Tesla is one of their customers, but it is not clear which subsidiary supplies Tesla, therefore the term “suspected supplier” is used.**

⁶³ <http://wwwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=577982&dataType=0&isyh=0&showtype=0>

⁶⁴ <http://wwwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=569631&dataType=0&isyh=0&showtype=0>

⁶⁵ <http://wwwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=168682&dataType=0&isyh=0&showtype=0>

⁶⁶ <http://wwwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=11798869&dataType=0&isyh=0&showtype=0>

⁶⁷ <http://wwwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=9160237&dataType=0&isyh=0&showtype=0>

⁶⁸ <http://wwwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=12929305&dataType=0&isyh=0&showtype=0>

⁶⁹ <http://wwwen.ipe.org.cn/IndustryRecord/regulatory-record.aspx?companyId=60422&dataType=0&isyh=0&showtype=0>