

Opinion Statement

Product Carbon Footprint Verification Opinion Statement

This is to verify that: West Coast Expressway Southern Region
Temporary Engineering Office
Directorate General of Highways
Ministry of Transportation and Communications.
No. 29, Puzi 7th Rd.
Puzi City, Chiayi County
Taiwan

交通部公路總局西部濱海公路
南區臨時工程處
臺灣
嘉義縣
朴子市
朴子七路 29 號

Holds Statement No: PCFV 271

As a result of carrying out the verification of infrastructure life cycle greenhouse gas emissions, it is the opinion of BSI with reasonable assurance that:

- The infrastructure carbon footprint of the Anshuo to Tsaopu Widening Section of Taiwan Provincial Highway: Caopu Senyong Tunnel (台 9 線南迴公路拓寬改善後續計畫安朔草埔段工程: 草埔森永隧道) is 531,341.97 tonnes of CO₂ equivalent.
- No material misstatements in this infrastructure life cycle greenhouse gas emission statement were revealed.

The infrastructure life cycle GHG data quality was verified to be acceptable against the requirements of ISO 14067:2018.

This statement shall be valid for a maximum period of two years after the latest issue date on this certificate. Should there be a change in the life cycle of the product whose GHG emissions are being assessed, the validity of this opinion statement will cease.

For and on behalf of BSI:

Managing Director BSI Taiwan, Peter Pu

Originally Registration Date: 2020-12-28

Effective Date: 2020-12-28

Latest Revision Date: 2020-12-28

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Location

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Verification Information

The infrastructure carbon footprint of the Anshuo to Tsaopu Widening Section of Taiwan Provincial Highway: Caopu Senyong Tunnel (台 9 線南迴公路拓寬改善後續計畫安朔草埔段工程: 草埔森永隧道) is 531,341.97 tonnes of CO₂ equivalent.

Additional information

The related information is as follows:

- System boundary for this infrastructure : Cradle to Grave
The infrastructure system boundary is consistent with its system boundary definition in PCF report for infrastructure carbon footprint, which involves the acquisition of raw material, construction activities, material transportation and operation phase in the infrastructure life cycle.
- The data in this infrastructure life cycle greenhouse gas inventory report was from 2013-07-10 to 2020-06-30.
- The site-specific data include related construction activities from its own processes under the operational control of the organization, and partial suppliers including
 - Hung-Chains International Co. Ltd. (弘浚國際企業有限公司)
 - TUNG HO STEEL ENTERPRISE CORP.- Kaohsiung plant (東和鋼鐵高雄廠)
 - Pan Xin Industrial Co., Ltd. Taitung Factory (磐鑫台東廠)
 - Feng Tun Asphalt Co., Ltd. (豐惇瀝青股份有限公司)
 - Hong Tai Electronic Industrial Co., Ltd. (宏泰電工股份有限公司)
- The secondary data include relative factors from public sources and LCA software SimaPro 8.5.2.
- The infrastructure carbon footprint with the functional unit of per kilometer (with 240 square meter cross section) of Caopu Senyong Tunnel (草埔森永隧道) is 115,509.12 tonnes of CO₂ equivalent.

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