

VERIFICATION STATEMENT OF GREENHOUSE GAS ASSERTIONS

Statement No. 00022-2020-AG-RGC-DNVGL

Page 1 of 2

TSMC (China) Company Limited.
*initiate reporting of***Greenhouse Gas Inventory
Management Report (2019)****Scope of Verification**

DNVGL Business Assurance (China) Co. Ltd (DNVGL) has been commissioned by TSMC (China) Company Limited to perform a verification of the greenhouse gas assertion of TSMC (China) Company Limited Greenhouse Gas Inventory Management Report (hereafter the "Inventory Report") with respect to the following organization scope area: 4000 Wen Xiang Road, Songjiang District, Shanghai , China.

Verification Criteria and GHG Programme

The verification was performed on the basis of ISO 14064-1:2006 as well as criteria given to provide for consistent GHG emission identification, calculation, monitoring and reporting.

Verification Statement

It is DNVGL's opinion that with reasonable assurance the greenhouse gas assertion of the Inventory Report of 2019, which was published on March 13, 2020 is free from material discrepancies in accordance with ISO 14064-1:2006.



FANG Guo Wei
GHG Verifier
Date: March 13, 2020



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Supplement to Statement No. 00022-2020-AG-RGC-DNVGL

Page 2 of 2

Process and Methodology

The reviews of the Inventory Report and the subsequent follow-up interviews have provided DNVGL with sufficient evidence to determine the fulfilment of stated criteria. The Inventory Report correctly complies with the requirement of ISO 14064-1:2006.

Quantification of Greenhouse Gas Emission

The Inventory Report covering the period January 1, 2019 to December 31, 2019, it is DNVGL's opinion that the Inventory Report results in quantification of GHG emissions that are real, transparent and measurable.

Organizational Boundary of Verification

Financial Management Control Operational Management Control Equity Share

GHGs Verified

CO₂ CH₄ N₂O HFCs PFCs SF₆ NF₃

The Global Warming Potential (GWP) defined in IPCC AR5 (2014) has been chosen and referred by the Organisation. Total emissions: 546215.6 Tonnes CO₂-e, in which :

Total Direct Emissions : 248291.3 Tonnes CO₂-e

Total Energy Indirect Emissions: 297924.3 Tonnes CO₂-e

(The electricity consumption related energy indirect emissions were calculated by the factor of 0.8046 kg CO₂-e/kwh (2017) which was announced by Ministry of Ecology and Environment.)

In March 2020, the company has applied for 369184 MWH I-RECs under International REC Standard and I-REC Registry with Redemption Request no. 2020-0331-0307-30, Redemption Account of TSMC-F10.

Verification Opinion

- Verified without Qualification
 Verified with Qualifications
 Unable to Verify