

Supplement to report on Tung Ho Steel's greenhouse gas emissions and reduction information

I. Influence of the enterprise on greenhouse gas emissions, or degree of impact:

(I) Risks faced by the enterprise in regard to climate change-related legislation:

1. Greenhouse Gas Reduction Act: Under restrictions for total emissions, the carbon emissions quotas allocated to each enterprise will be restricted and it will be necessary to utilize carbon trading markets to purchase carbon credits, which will raise the enterprise's operating costs.
2. Air Pollution Control Act: Air pollution standards are becoming gradually stricter, and will increase the enterprise's operating costs.
3. Energy Tax Regulation: Fuel or energy taxes will be collected, which will increase the enterprise's operating costs.
4. Intensity Standards for Product Greenhouse Gas Emissions: Product carbon emissions standards are becoming stricter, which will add to the enterprise's operating costs.

(II) Substantive enterprise risks from climate change

Extreme climate: Extreme rains, causing interruptions in production capacity. Increase in drought frequency, and because of a lack of water there may be regional restrictions, thus affecting industrial water use and resulting in interruptions in production capacity.

(III) Opportunities presented to the enterprise by climate change

Tung Ho Steel believes that if the enterprise properly manages and controls climate change risks, it can improve corporate competitiveness and create opportunities. Therefore, Tung Ho Steel continually pursues plans for conserving energy and reducing carbon emissions. The opportunities presented to the company are as follows:

Regulatory opportunities

1. Tung Ho Steel began voluntarily reducing its greenhouse gas emissions in 2003. Over more than 10 years, the company has reduced its emissions of greenhouse gases by an equivalent of 440,000 tons of dioxide. In 2014, the reductions of greenhouse gas emissions by the various Tung Ho Steel plants over the years passed the early-stage reduction audits by the Environmental Protection Administration, Executive Yuan. These results can be used by the company in future greenhouse gas offsets.
2. The CO₂ emissions intensity of electric furnace steelmaking is only about 1/5 that of blast furnace/converter furnace steelmaking. If carbon tax measures are enacted, compared to blast furnace/converter furnace steel, electric furnace steel will be more competitive.

Product opportunities

1. Tung Ho Steel has persisted in promoting high-level SN steel production technology, enabling Tung Ho Steel products to better accord with conditions for future resistance to natural disasters and reducing consumer group losses, so as to ensure personal and environmental safety.

(IV) Enterprise (direct, indirect) greenhouse gas emissions (indicate inventory scope and time) and whether external verifications have been passed

1. Names of public and private sites: Tung Ho Steel Enterprise Corporation Miaoli Works
2. Scope of inventory: Scope 1 (direct greenhouse gas emissions) & Scope 2 (energy indirect greenhouse gas emissions) & Scope 3 (other indirect greenhouse gas emissions)
3. GWP value utilizes the IPCC 1995 second assessment report data
4. 2014 annual greenhouse gas emissions volume
5. Period of inventory: From January 1, 2014 to December 31, 2014

	Direct greenhouse gas emissions (Scope 1) Metric ton equivalent of CO2 emissions	Energy indirect greenhouse gas emissions (Scope 2) Metric ton equivalent of CO2 emissions	Other indirect greenhouse gas emissions (Scope 3) Metric ton equivalent of CO2 emissions	Total Metric ton equivalent of CO2 emissions
Taoyuan Works	72,232.753	304,564.096	0	376,796.849
Miaoli Works	151,163.005	265,081.622	0	416,244.627
Total	223,395.758	569,645.718	0	793,041.476

6. External verification institution: Bureau Veritas Certification Taiwan (BV)
7. External verification is expected to be conducted in April to May 2015, with a verification letter of attestation obtained by June 2015.

II. Strategies, methods, and goals of the enterprise in relation to greenhouse gas management:

(I) Management strategies of the enterprise in response to climate change or greenhouse gases

Strategies for climate legislation risks

There are growing amounts of legislation or agreements regarding control of greenhouse gas emissions in countries around the world. Tung Ho Steel continues to pay attention to legislative changes both at home and abroad and learn about trends in legislation, in order to make proper advance preparations. In addition, the company is actively proposing recommendations regarding legislative revisions through industry associations and government discussions to make legislation more reasonable and applicable.

Climate disaster risk strategy

Tung Ho Steel believes that to manage and control climate risks, it is necessary to focus both on mitigation and adjustments, combining efforts by the government, society, and industry to face the issue together. In order to ensure stable supply of electricity and water, Tung Ho Steel is actively cooperating with the government to promote measures aimed at conserving electricity and water so as to jointly resolve issues of short-term supply and allocation changes.

Other climate risk strategies

Tung Ho Steel not only annually actively promotes reduction measures and carries out greenhouse gas inventory and disclosures of product carbon footprints and emissions, but also reports greenhouse gas emissions and reduction information to the Environmental Protection Administration in accordance with regulations. Each year the company obtains a verification results statement from a verification company that helps Tung Ho Steel expand into international markets.

(II) Goals of enterprise greenhouse gas emissions reductions

1. Carbon steel billet: Emissions intensity less than 0.426 metric tons CO₂e/unit
2. H-beam steel: Emissions intensity less than 0.169 metric tons CO₂e/unit

(III) Budgets and plans for enterprise greenhouse gas emissions reductions

1. Promote computerization of documentation, forms, and processes to reduce paper usage.
2. Publicize energy and water conservation policies in order to achieve indirect reductions in greenhouse gas emissions. Set controls on air-conditioning temperatures and hours, and advocate a 1% reduction in casual electricity usage.
3. Improve equipment, select high-efficiency motors, improve production process energy consumption, and introduce an ISO50001 energy management system.
4. Cooperate with industry associations to actively participate in voluntary reductions of greenhouse gas emissions.

(IV) Carbon reduction effects offered to customers or consumers by the enterprise' s products or services

1. Climate change has made energy conservation and carbon reductions the primary demand made of the steel industry. The company is actively resolving [*sic*] plans to reduce energy consumption in hopes of doing its part in investing in products that conserve energy and have a reduced carbon footprint. We hope to provide technology that enables relevant industrial products to achieve more savings in terms of energy consumption, so as to become more efficient and to reduce costs.
2. Tung Ho Steel utilizes electric furnaces to refine steel. In terms of greenhouse gas emissions intensity, steel refining using electric furnaces has only 1/5 of the intensity of blast furnace/converter furnace steel refining. Until a more cost-effective material is found to replace steel materials for building structures, choosing electric furnace steel, with lower greenhouse gas emissions, is the current trend worldwide. In choosing Tung Ho Steel products, customers are opting for reduced carbon emissions.