



低碳制造计划报告

LOW CARBON MANUFACTURING PROGRAMME (LCMP) REPORT

低碳制造计划乃世界自然基金会的项目，
旨在减少制造业的碳排放

A WWF initiative to reduce carbon
emissions in manufacturing



世界自然基金会

世界自然基金会是全球性环保组织，总会于 1961 年成立，总部设于瑞士。分会及项目遍布全球超过100个国家，拥有超过500万個支持者。

世界自然基金会的使命和气候变化

世界自然基金会的使命是遏止地球自然环境的恶化，创造人类与自然和谐相处的美好未来。

然而，世界自然基金会等保育组织在过去半个世纪取得的一切成果，被气候变化所威胁。

许多动植物在过去数百万年间已经适应了周边的环境，即使温度变化轻微，亦备受伤害。气候变化意味着许多这类敏感的物种可能快将面临绝种。海洋变暖和酸化威胁到世界上许多地方的海洋食物链的基层 - 珊瑚礁和磷虾；而大型哺乳动物，如鲸鱼和大象，可能被迫到远处寻找食物，离开世界自然基金会和其他环保组织一直奋力争取的安全保护区。

人类也是地球万物的一份子，气候变化带来的后果，人类也都不能置身事外。

世界自然基金会香港分会

自1981年起，世界自然基金会香港分会透过保育、生态足印及环境教育项目，缔造生生不息的地球。

为响应我们在全球的使命，世界自然基金会香港分会的愿景是透过保育自然环境，减少碳排放造成的污染，市民「惜」用资源，推动香港成为亚洲最可持续发展的城市。减少区域性的温室气体排放，并确保我们消费的产品通过低碳制造生产，这些都是实现愿景的关键因素，亦是努力解决全球气候变化危机的行动。

低碳制造计划目标

世界自然基金会香港分会的低碳制造计划（LCMP），旨在减少中国厂房的碳排放量，并鼓励企业提高供应链碳排放的透明度，及找出资源运用效率不足的地方。

撰写

魏启宏

何美娟

关逸明

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WWF

WWF is one of the world's most respected conservation organizations, with over five million supporters and a network active in more than 100 countries. WWF was founded in 1961 with headquarters based in Switzerland.

WWF'S GLOBAL MISSION ON CLIMATE CHANGE

WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature. However, the process of climate change threatens to undo everything that conservation organizations like WWF have achieved over the last half century.

Many plants and animals that have adapted to their environments over the course of millions of years are vulnerable to even the slightest changes in temperature. Climate change means that many of these sensitive species may soon face extinction. Warming and acidifying seas threaten coral reefs and krill – the basis of the marine food chain in many parts of the world; while large mammals like whales and elephants may be forced to travel further in search of food, in the process leaving the safety of the protected areas that WWF and other groups have fought so hard to secure.

Human beings are also part of the interwoven web of life on Earth, and this means that we too are not immune to the consequences of a changing climate.

WWF-HONG KONG

WWF-Hong Kong has been working since 1981 to deliver solutions for a living planet through Conservation, Footprint and Education programmes.

In support of our global mission, WWF-Hong Kong's vision is to transform Hong Kong into Asia's most sustainable city where nature is conserved, carbon pollution is reduced, and consumption is environmentally responsible. Reducing regional greenhouse gas emissions and ensuring that the products we consume are produced through low-carbon manufacturing are major components of this vision, as is working towards solving the global climate crisis.

LCMP PROGRAMME OBJECTIVES

WWF-Hong Kong's Low Carbon Manufacturing Programme (LCMP) aims to reduce the carbon emissions generated by manufacturing facilities in China. The LCMP also encourages companies to increase transparency in supply chain carbon emissions and uncover inefficiencies in resource use.

Contributors

Gavin Edwards

Karen Ho

Yat-ming Kwan

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2013年取得低碳制造计划标签的公司

COMPANIES ATTAINING LCMP LABELS IN 2013

白金 Platinum

东莞晶苑毛织制衣有限公司

Dongguan Crystal Knitting and Garment Co., Ltd.

东莞业基工业有限公司

Dongguan Yeji Industrial Company Limited

黄金 Gold

浙江裕诚建筑五金有限公司

Best Goal Hardware Ltd.

格林美（武汉）城市矿产循环产业园开发有限公司
（塑木事业部）

GEM Wuhan Urban Mine Recycling Industrial Park Co., Ltd.
(Wood Plastic Composites Division)

河北五鑫花园制品有限公司

Hebei Wuxin Garden Products Co., Ltd

江门市新恒星厨房用品有限公司

Jiangmen New Star Hi-Tech Enterprise Ltd

利欧集团股份有限公司

Leo Group Co., Ltd.

耐思电气（嘉兴）有限公司

Nexus Electrical (Jiaxing) Limited

鹏威（厦门）工业有限公司

PPI Xiamen Industry Co. Ltd

深圳香岛无纺布有限公司

Shenzhen Hong Tao Non-Woven Fabric Co., Ltd.

浙江生辉照明有限公司

Zhejiang Shenghui Lighting Co., Ltd

中山基尔电器有限公司

Zhongshan Fired Up Electrical Appliances Ltd.

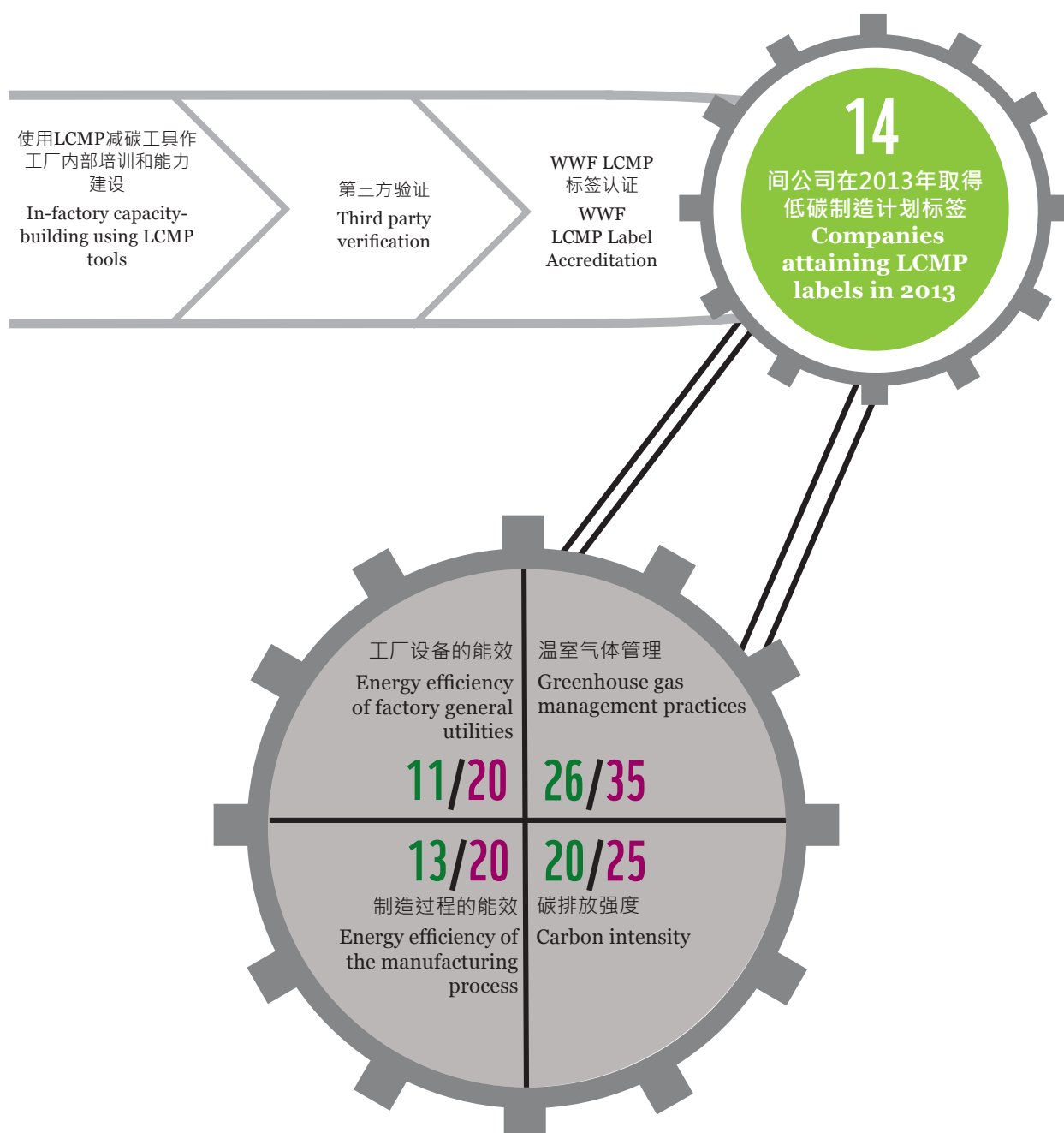
纯银 Silver

立达信绿色照明股份有限公司

Leedarson Lighting Co., Ltd.

浙江永强集团股份有限公司 (第二制造部)

Yotrio Group Co., Ltd. (workshop 2)



平均得分/最高得分 Mean score / Maximum score



白金标签：总分80分或以上
黄金标签：总分60至79.9分
纯银标签：总分40至59.9分

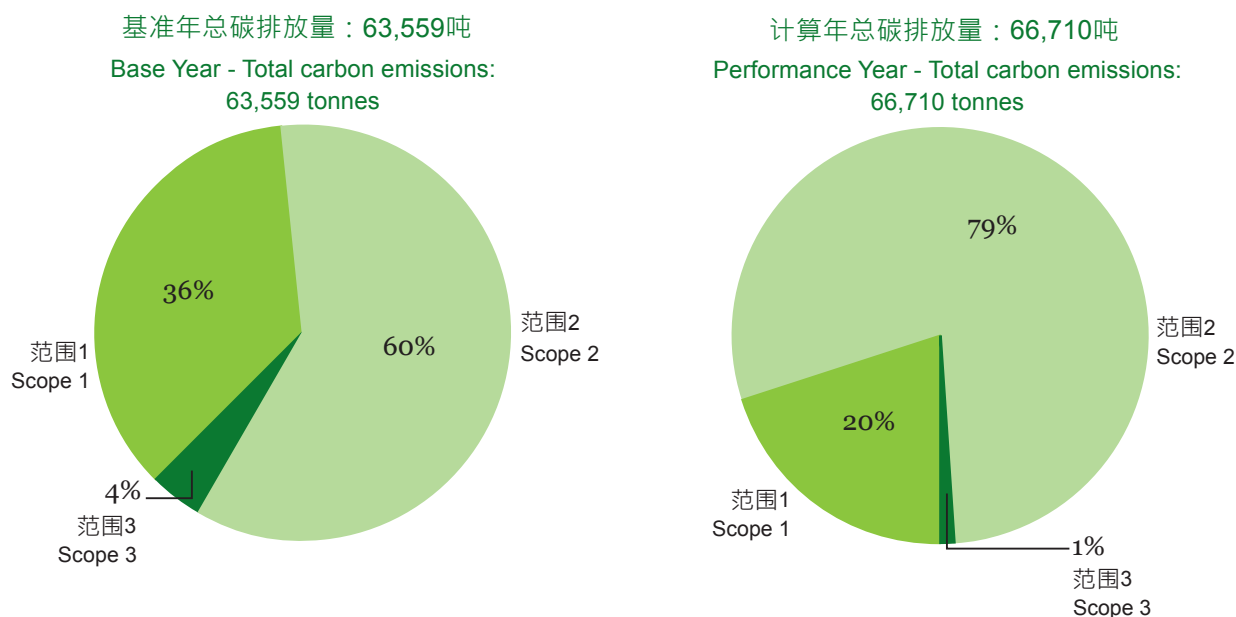
Platinum label: Total score equal to or greater than 80
Gold label: Total score between 60 and 79.9
Silver label: Total score between 40 and 59.9

碳排放范围分析

BREAKDOWN OF CARBON EMISSIONS BY SCOPE

根据低碳制造计划依据的国际标准「温室气体议定书」，低碳制造计划认证公司的碳排放量分布如下：

According to the Greenhouse Gas (GHG) Protocol, an international standard upon which the LCMP was built, the carbon emissions of LCMP-accredited companies is distributed as illustrated below:



注：只有四间公司报告范围3的数据。Remark: Only four companies reported data for Scope 3.

范围1：直接产生的温室气体排放

公司持有或者控制排放源直接产生的温室气体排放，例如锅炉、熔炉的燃料使用量，以及车辆运行产生的排放。

范围2：间接产生的温室气体排放

购买回来的电力、蒸汽或热力间接产生的温室气体排放。例如，工厂内来自电力网络的电力使用量。

范围3：其他间接排放

其他间接排放，例如乘搭非公司拥有的车辆出差、外判第三方举办的活动等。

再生能源的数据与排放范围分开报告。三间公司已在生产过程或员工宿舍中安装太阳能热水系统，和/或改造燃煤锅炉以使用生物质。

Scope 1: Direct GHG emissions

Direct emissions from stationary or mobile combustion sources in or belonging to the manufacturing factory. For example, fuel consumption in boilers or furnaces and emissions from company vehicles.

Scope 2: Indirect GHG emissions

Indirect emissions from the generation of purchased electricity, steam or heat. For example, electricity consumed in factory that is supplied via the power grid.

Scope 3: Other indirect GHG emissions

Other indirect emissions. For example, emissions resulting from business travel in non-company owned vehicles and third-party outsourced activities.

Data on renewable energy is reported separately from the scope of emissions. Three companies installed solar hot water systems either along their production processes or in workers' dormitories, and/or retrofitted coal-fired boilers for biomass use.

评核碳排放强度

SCORING CARBON INTENSITY

低碳制造计划的网上碳审计软件与国际标准和中国燃料排放系数一致，让公司能建立、监察和报告合乎国际标准、统一而可靠的数据。低碳制造计划的第三方验证程序，确保输入系统的数据有效和可信，为低碳制造计划的碳排放强度评分提供主要数据。

碳排放强度是根据公司的营业额、生产数量等数据而计算的平均温室气体（转化为二氧化碳当量，CO₂-e）排放率。

2013年，低碳制造计划认证公司的平均碳排放强度减少9%。

在首年验证中，公司需要提交两年碳排放强度数据（参考网上碳审计软件）。计算年的数据会跟基准年比对，以计算碳排放强度的百分比。此部份占整个标签认证评分的25%，评分方法如下：

The LCMP online carbon accounting tool is consistent with both the GHG Protocol and Chinese fuel emissions factors. The tool enables companies to develop, monitor and report standardized and reliable datasets in line with international standards. The LCMP verification process assures the validity of data entered into the system and the credibility of the carbon emissions data used to score carbon intensity during the LCMP accreditation process.

Carbon intensity is calculated by examining the average rate of greenhouse gas emissions produced (converted to CO₂-equivalent) relative to a company's business volume, production volume, and other factors.

The average carbon intensity reduction of the 2013 LCMP-accredited companies was 9%.

In a company's first verification, two years of carbon intensity data, compiled using the LCMP's online carbon accounting software, are submitted by the company – the first year is the base year, while the second year is the performance year. Data from the performance year is then compared with the base year to determine the percentage change in the company's carbon intensity. This figure contributes 25% of the overall label calculation score. The marks in this section are calculated as follows:

碳排放强度的转变(%) Change in Carbon Intensity (%)	0	-0.5	-1	-1.5	-2	-2.5	-3	-3.5	-4	-4.5	-5	>-5
碳排放强度部份的得分 Marks Added in Carbon Intensity Section	0	10	20	30	40	50	60	70	80	90	100	100

由第二次验证开始，计分方法维持不变。无论第一次验证的成绩如何，如果碳排放强度增加10%或以上，分数将会按右图被扣减：

The scoring method remains unchanged in the second and subsequent verifications. Regardless of the results of the first verification, marks in this section will be deducted if the carbon intensity increases and exceeds the tolerance level of 10%. The marks deducted will depend on the percentage increase in carbon intensity, and can be referenced in this table:

碳排放强度的转变 (%) Change in Carbon Intensity (%)	碳排放强度部份扣减的分数 Marks Deducted in Carbon Intensity Section
实际增加少于或等于10% Actual Increase less than or equal to 10%	0
实际增加多于10%至100% Actual Increase is between 10% and less than 100%	实际增加 x 50 Actual Increase x 50
实际增加超过100% Actual Increase is more than 100%	50

例子 1 Example 1	例子 2 Example 2	例子 3 Example 3
碳排放强度增加5%，碳排放强度部份扣减的分数 = 0 Carbon intensity increases by 5%: marks deducted in carbon intensity section and overall label class = 0	碳排放强度增加50%，碳排放强度部份的分数会被扣减25分（50% x 50），而总分将会扣减6.25（25 x 0.25） Carbon intensity increases by 50%: marks deducted in the carbon intensity reduction section = 25 (50% x 50), and marks deducted in the overall label class = 6.25 (25 x 0.25)	碳排放强度增加100%，碳排放强度部份的分数会被扣减50分，而总分将会扣减12.5（50 x 0.25） Carbon intensity increases by 100%: marks deducted in the carbon intensity reduction section = 50, and marks deducted in the overall label class = 12.5 (50 x 0.25)

最佳守则行动计划的表现

PERFORMANCE IN BEST PRACTICE ACTION PLAN

温室气体管理守则

温室气体管理守则是运用符合ISO 14001的清单执行验证，只要低碳制造计划认证公司紧守遵行ISO 14001，便可确保最佳温室气体排放管理守则得以推行。管理守则由找出温室气体排放的额外风险和回报，以至全新的能源效益提升方法，进而涵盖整个企业所有与气候变化相关的表现。温室气体管理清单中有四个部分，合共49项准则。

THE GREENHOUSE GAS MANAGEMENT SYSTEM

LCMP-accredited companies are assessed against a checklist compatible with ISO 14001 standards. With close compliance, this checklist will ensure that the best greenhouse gas (GHG) management practices are implemented. Best management practices not only include identification of the additional risks and rewards of GHG emissions management; they extend beyond traditional energy efficiencies to encompass the entire organization's performance in relation to climate change. There are four sections and 49 criteria in the GHG management checklist.

超过一半的低碳制造计划认证公司在以下准则中取得满分：
More than half of the LCMP-accredited companies received FULL marks in the following criteria:

温室气体排放/能源政策 GHG / ENERGY POLICY		温室气体/能源目标和管理项目 GHG TARGETS AND MANAGEMENT PROGRAMME	
✓	1 温室气体排放政策声明 GHG policy statement	✓	1 确定影响温室气体排放的相关活动 Identification of activities that impact on GHG emissions
✓	2 应用在公司所有的活动 Applicable to all activities of the company	✓	2 确定影响温室气体排放的非能源相关活动 Identification of non-energy activities that impact on GHG emissions
✓	3 高层管理承诺 Senior management commitment	✓	3 确定间接温室气体排放 Identification of indirect GHG emissions
✓	4 政策告知员工 Policy communicated to employees	✓	4 建立温室气体盘查清册并定期进行更新 GHG inventory established and regularly updated
✓	5 符合相关法律法规 Compliance with relevant laws and regulations	✓	5 对温室气体减排方案进行评估 Assessment of GHG emissions reduction options conducted
✓	6 持续改进 Continuous improvement	✓	6 向相关人员传递温室气体因素清单 List of GHG aspects communicated to relevant personnel
(i) 温室气体排放/能源政策共有7项准则 The GHG / Energy Policy Section consists of 7 criteria		✓	7 设定有时限的温室气体减排目标 Timebound GHG emissions target
		✓	8 温室气体减排目标和法律要求保持一致 Targets consistent with legal requirements
		✓	9 确定导致达成目标的各种责任 Responsibilities for achieving targets defined
		✓	10 针对最主要的温室气体/能源因素而订立温室气体/能源管理项目 GHG / Energy management programme addresses significant GHG / Energy aspects
		(ii) 温室气体/能源目标和管理项目共有19项准则 The GHG / Energy Targets and Management Programme Section consists of 19 criteria	

可改善地方
AREAS FOR
IMPROVEMENT

超过一半的低碳制造计划认证公司在「评估影响温室气体排放的暂时活动」中取得零分。暂时活动包括员工旅行、春茗等。

More than half of the LCMP-accredited companies received ZERO marks in "Impact on GHG emissions of temporary activities assessed". Examples of temporary activities include company picnics and annual dinners.

实践及操作

IMPLEMENTATION AND OPERATION

✓	1	确定运行责任并进行记录 Operational responsibilities defined and documented
✓	2	安排足够的资源以实现目标 Sufficient resources allocated to achieve targets
✓	3	委任温室气体/能源管理代表 GHG/Energy management representative
✓	4	进行培训和提高意识的活动 Training and awareness raising activities
✓	5	内部沟通 Internal communication
✓	6	对文件进行控制 Document control
✓	7	文件存储 Document storage
✓	8	更新受控活动清单 Regular updates made to list with activities under control

(iii) 实践及操作共有16项准则

The Implementation and Operation Section consists of 16 criteria

检查及改错

CHECKING AND CORRECTION

✓	1	监控报告和管理评估 Monitoring reports and management evaluation
✓	2	监控责任 Monitoring responsibility
✓	3	明确检查违规行为的责任 Responsibility for checking non-conformity
✓	4	记录违规行为 Documentation of non-conformity
✓	5	纠错行动 Corrective actions
✓	6	定期进行内部温室气体/能源管理审计工作 An internal GHG / Energy management audit is conducted periodically

(iv) 检查及改错共有7项准则

The Checking and Correction Section consists of 7 criteria

工厂设备的能源效益守则

工厂设备的能源效益清单是一系列改善措施，以提升工厂设备在设计和维护方面的能效，设备包括压缩空气系统、电力系统、HVAC（暖气、通风系统及空调）、照明以及蒸汽系统。工厂设备的能效清单中包括五个部分，合共50项准则。

ENERGY EFFICIENCY BEST PRACTICE - FACTORY GENERAL UTILITIES

LCMP-accredited companies are evaluated against an energy efficiency best practice checklist for general utilities. This is a list of improvement measures intended to maximize energy efficiency in the design and maintenance of factory general utilities including Compressed Air, Electrical, HVAC (heating, ventilation and air-conditioning), Lighting and Steam Systems. There are five sections and 50 criteria in the factory general utilities energy efficiency checklist.

压缩空气系统 Compressed Air System	电力系统 Electrical System	暖通空调系统 HVAC System	照明系统 Lighting System	蒸汽系统 Steam System
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超过一半的低碳制造计划认证公司在以下准则中取得满分：
More than half of the LCMP-accredited companies received FULL marks in the following criteria:

电力系统 Electrical system	
✓ 1	保持适当的功率因数 Maintaining the proper power factor in electrical systems
压缩空气系统 Compressed air system	
✓ 2	于合适位置安装适当大小的空气储存器（气罐）来减少压力需求波动带来的影响 Properly sized and properly located air receiver installed to minimize pressure demand fluctuations
✓ 3	适当设计管道的分布（压缩机大小适当，位置良好） Proper distribution pipework arrangement (proper sizing and good positioning of compressors)
✓ 4	适当处理压缩空气，如冷冻、干燥和过滤 Proper compressed air treatment such as cooling, drying and filtering
✓ 5	预防性保养计划，定期检查空气泄漏 Periodic preventive maintenance programmes to check air leakage
✓ 6	在合理的期限内清洁或更换过滤网 Filters cleaned or replaced within a reasonable period
蒸汽系统 Steam system	
✓ 7	安装适当的补水处理设备来减少水垢沉淀和减少锅炉排污（如软化剂，脱碳剂，除盐剂和脱氧剂等） Proper feed-water treatment devices installed to reduce scale deposits and minimize boiler blowdown (e.g. softeners, de-carbonation, demineralization and de-aeration)
✓ 8	建立保养计划，去除锅炉热传导表面沉淀的水垢（机械或酸洗） Maintenance plan to remove scale deposits on heat transfer surfaces in boilers (mechanically or by acid cleaning)
✓ 9	适当操作补水处理系统，预防水垢沉淀 Proper operation of feed-water treatment to prevent scale deposits

(v) 工厂设备的能源效益守则共有50项准则
The Factory General Utilities Energy Efficiency checklist consists of 50 criteria.

超过一半的低碳制造计划认证公司在以下5个准则中取得零分：
More than half of the LCMP-accredited companies received ZERO marks in the following five criteria:

可改善地方
AREAS FOR
IMPROVEMENT

暖通空调系统 HVAC system	提供热能回收	Provision of energy recovery
压缩空气系统 Compressed air system	为压缩机安装变速装置（仅针对不断变化的需求模式）	Variable speed drives installed for compressors (for fluctuating demand pattern only)
	在压缩机上使用高效马达（如EFF1马达、NEMA马达等）	High efficiency motors (e.g. EFF1, NEMA premium, or similar) used for compressors
	压缩机热回收系统（如润滑油冷却器热回收、来制造热水）	Heat recovery system for compressors (e.g. heat exchanger installed at lubricant cooler to produce hot water)
蒸汽系统 Steam system	配有溶解固体总浓度监测和控制设备的自动排污控制系统	Automated blowdown control system with Total Dissolved Solids (TDS) monitoring and control for boiler to minimize boiler blowdown



制造过程的能源
效益守则

低碳制造计划认证公司的制造过程的能源效益守则得分，是根据相应清单和通过现场评估来厘定，守则针对各行各业生产流程所涉及的设备，作出改善建议，以减少能源消耗，设备包括生产过程所用之各类型机器和监控设备。制造过程的能效清单是根据行业工艺的特性而汇编，因此各行业有不同的准则。

ENERGY EFFICIENCY BEST PRACTICE -
MANUFACTURING PROCESS

LCMP-accredited companies are also evaluated against an energy efficiency best practice checklist for their manufacturing processes. This provides guidance on how to streamline industry-specific production process facilities in order to conserve energy consumption; including production machines and monitoring and control facilities directly related to production processes. The manufacturing process energy efficiency checklist is industry-specific, therefore different sets of criteria are used for different industries.

低碳制造计划监测减碳成效

CARBON REDUCTION THROUGH LCMP MONITORING

低碳制造计划在2008-2009年之间试点运行后，并于2010年推出。计划要求标签认证的公司，每两年进行一次第三方验证，以实现持续减少碳排放强度。

六家公司在2012-2013年之间进行第二次验证。这些公司在第二次评审中，有三家取得白金标签，两家取得黄金标签和一家取得纯银标签。

以下散点图探讨碳排放强度的变化（基准年与计算年度）和低碳制造计划认证公司的参与年数之间的关系。趋势线显示呈负相关。即企业加入低碳制造计划越长久，实现降低碳强度越大。

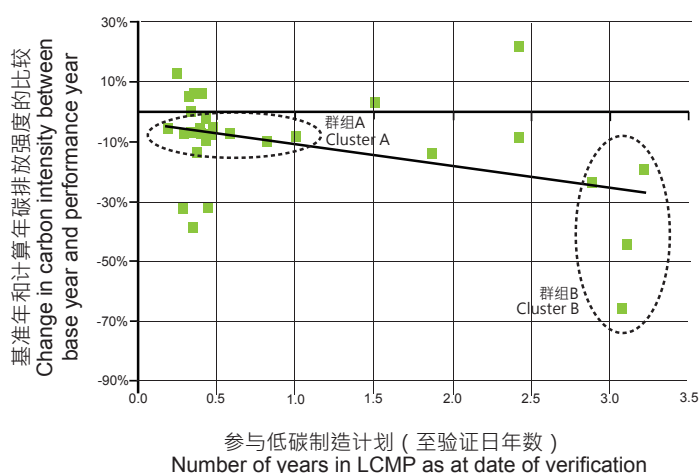
群组A内的公司加入低碳制造计划不到一年，碳强度比基准年减少达15%。这可能是因为遵循低碳制造计划的最佳守则而达成的简易目标。公司利用实施容易执行的措施所节省的成本，再投资在低到中等成本的能源效率措施，从而取得更大的碳减排，亦将有可能随着时间而移动到群组B公司的位置。

The LCMP was launched in 2010, after successful pilot projects were conducted at nine companies between 2008 and 2009. The programme requires companies to undergo third-party verification every two years and to achieve continuous reductions in carbon intensity in order to gain label accreditation.

Six companies underwent a second verification in 2012-2013. Of these companies, three attained Platinum label status, two attained Gold label status and one received a Silver label after the second accreditation.

The scatter diagram below illustrates the relationship between the change in carbon intensity in the base year versus the performance year, plotted against the number of years the accredited companies have been participating in the LCMP. The trend line indicates a negative correlation, i.e. the longer the companies participate in the LCMP, the greater reduction of carbon intensity they achieve.

Companies in Cluster A have been part of the LCMP for less than one year and achieved a reduction of carbon intensity up to 15% between the base year and the performance year. This could be a result of pursuing “easy targets” by following LCMP best practice guidelines. Companies thus make use of the energy cost savings gained from such “low-hanging fruit” and use these savings to invest in low-to-medium-cost energy efficiency measures, thereby achieving greater carbon emissions reductions over time, as indicated by the companies circled in Cluster B.



■ 低碳制造计划认证公司
LCMP-accredited companies

公司参与低碳制造计划
时间越久，碳排放强度
下降幅度越大。

Companies participating in the LCMP
for a longer time achieve a greater
reduction in carbon intensity.

减碳和业务增长

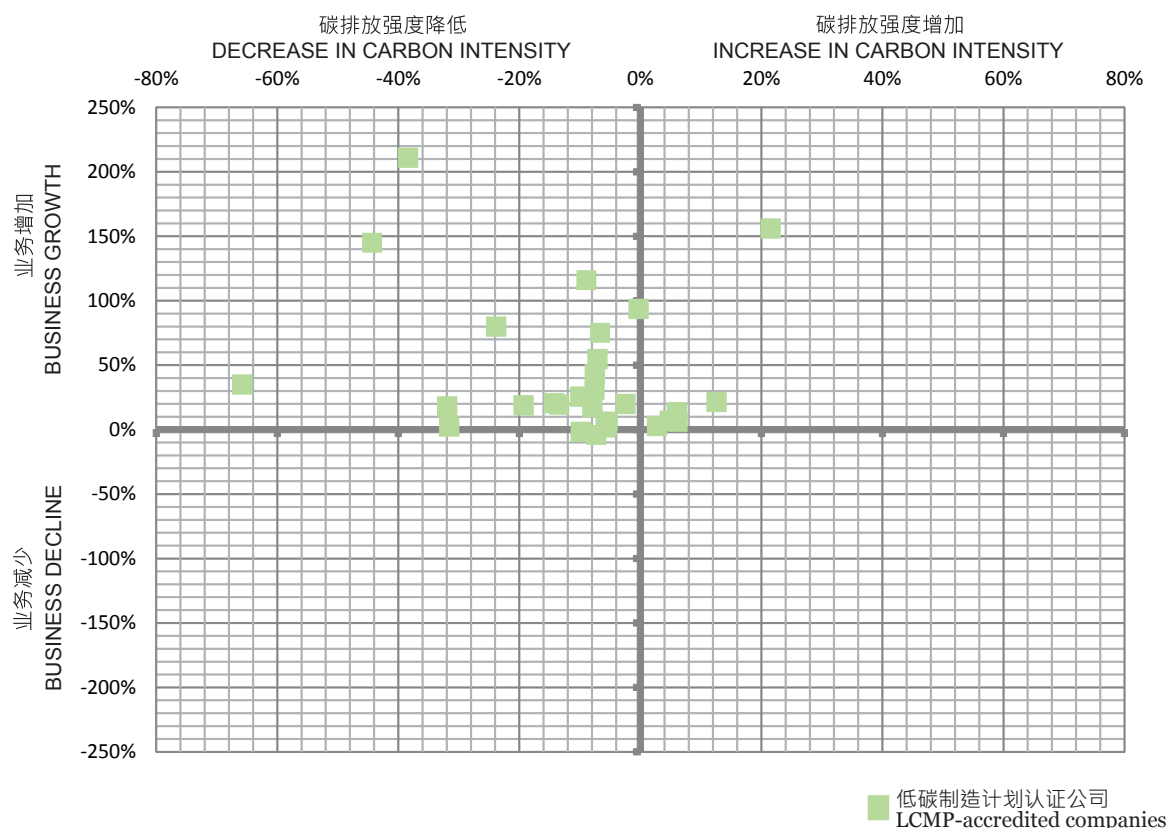
CARBON REDUCTION AND BUSINESS GROWTH

碳排放量是否一定会随业务增长而增加？下图探讨低碳制造计划认证公司的业务增长和碳排放强度降低的关系。变动的百分比为基准年和计算年之间的比较。大部分数据点位于左上方格，即高业务增长 - 高碳排放强度减幅。碳排放强度减幅百份比高，代表电力/资源利用效率提高，是一种有机会令业务增长的竞争优势的来源。

Is an increase in carbon emissions strictly necessary for a business to grow? The scatter diagram below investigates the relationship between business growth and carbon intensity reduction of LCMP-accredited companies. The percentage change is a comparison between the base year and the performance year. The majority of data points lie in the upper left hand quadrant, which represents business growth and a decrease in carbon intensity. A high percentage change in carbon intensity reduction indicates an improvement of efficiency in electricity or resource usage. These efficiencies are a source of competitive advantage that could lead to further growth of the business.

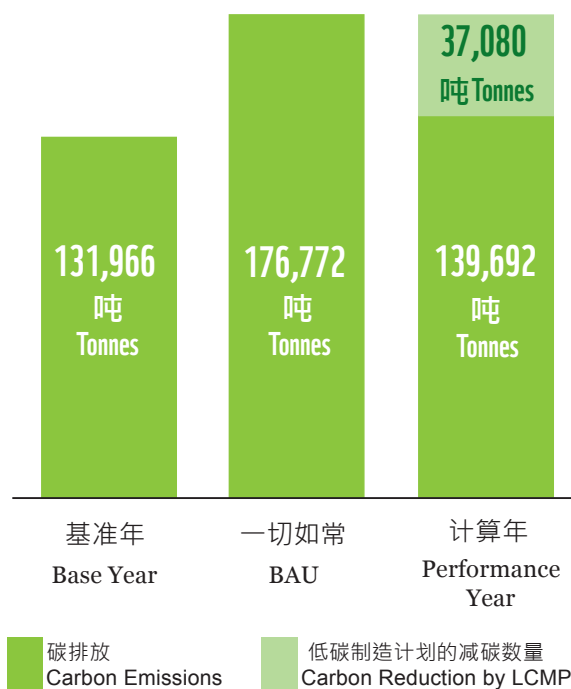
减少碳排放强度 = 提高效率 = 竞争优势

Carbon intensity reduction = Improvement in efficiency = Competitive advantage



停止「一切如常」 STOP “BUSINESS AS USUAL”

29间低碳制造计划认证公司
29 LCMP-accredited companies



基准年及计算年的业务增长达
Between the base year and performance
year, businesses had collectively grown by **43%**

避免了 **37,000** 吨碳排放*
Avoided **37,000** Tonnes of Carbon Emissions*

世界自然基金会香港分会气候项目商业参与总策划何美娟表示：「低碳制造计划认证公司展示了业务增长而碳排放量不提高是有可能的。通过采用温室气体管理系统、改善厂房设施和制造工艺的能源效率，以及定期监察碳排放，这些公司在开拓新的竞争优势，同时表现出卓越的碳绩效。」

“The LCMP-accredited companies demonstrate that it is possible to grow a business without growing carbon emissions. By means of adopting a greenhouse gas management system and improving energy efficiency as well as monitoring carbon emissions regularly, these companies explore a new source of competitive advantage and excel in carbon performance,” says Karen Ho, Business Engagement Leader, Climate for WWF-Hong Kong.

*基准年和预计业务照常（BAU）的碳排放量比较
Comparing their base year and projected business-as-usual emissions

基准年

订立基准年是用以维持持续、有效及一致的比较。基准年一般是由有可核查数据记录的最早一年开始，可以是单年数据或多年数据的平均值。

获认证公司中，8间公司以2009年或以前年度为基准年，另外21间公司分别以2010和2011年为基准年。

BAU

BAU是指在目前发展模式下不采取减排措施造成的温室气体排放量预测值。BAU的计算方法以基准年的碳排放吨数除以基准年的营业额，再乘以计算年的营业额。

计算年

12间公司选择以2012年和16间公司选择以2011年为计算年。而另一公司则以2010年为其计算年。

Base Year

Setting a base year allows the meaningful and consistent comparison of emissions over time. The base year is generally the earliest year that verifiable emissions data became available, and can be either a single year or a multi-year average.

Among the 29 LCMP-accredited companies, eight companies set their base year as 2009 or prior years, and 21 companies set their base year as 2010 and 2011.

BAU

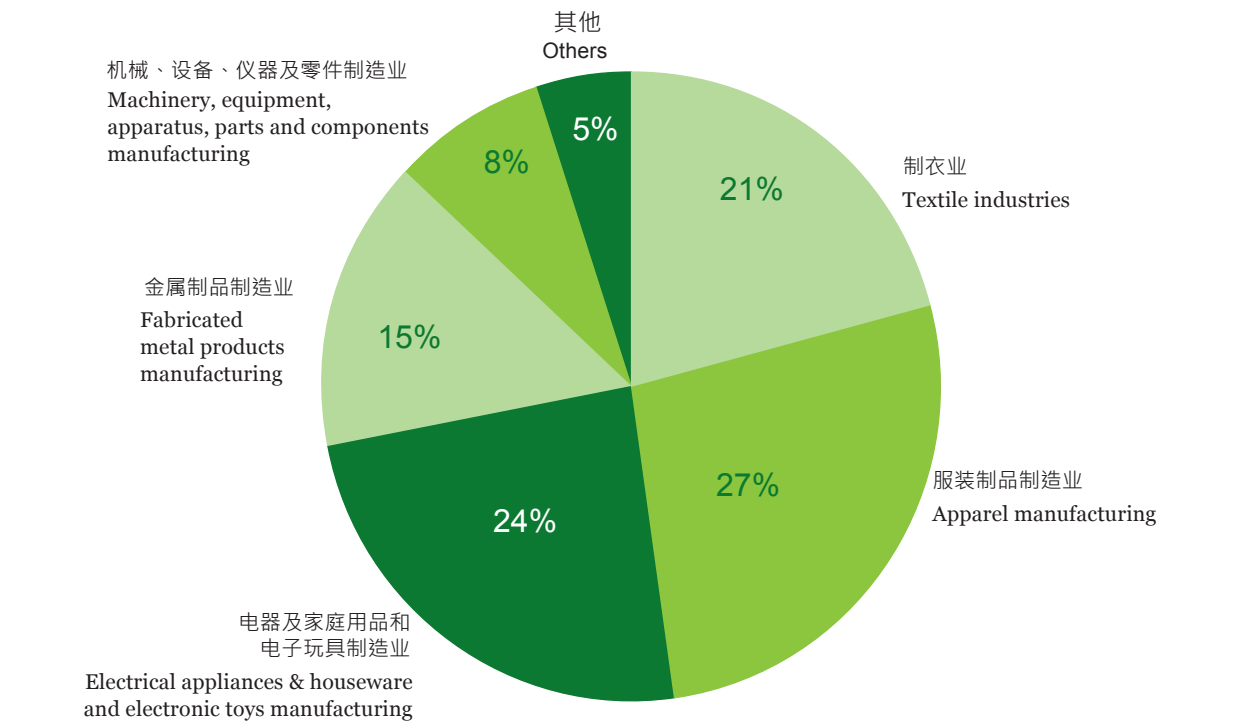
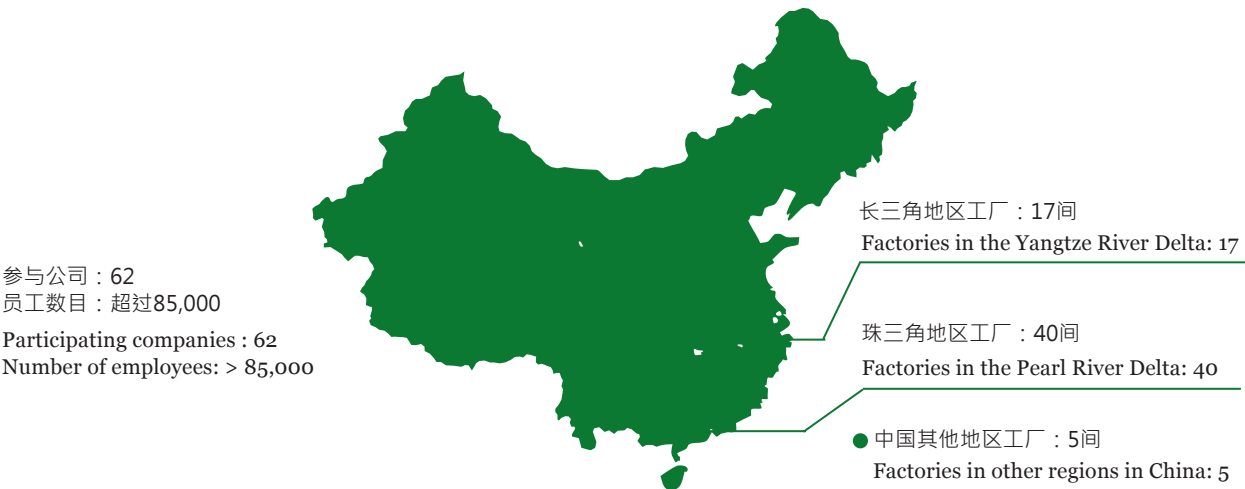
BAU (Business As Usual) refers to the estimated amount of greenhouse gas emissions that would be produced under a business' current situation, without employing any carbon reduction measures. BAU is calculated as the carbon emissions (in tonnes) in the base year divided by business volume in the base year, multiplied by the business volume in the performance year.

Performance Year

12 companies chose 2012 and 16 companies chose 2011 as their performance year. One company chose 2010 as its performance year.

低碳制造计划主要概况 (截至2013年9月)

KEY FACTS ABOUT THE LCMP (as of 30 September 2013)



更多有关低碳制造计划

MORE ABOUT THE LOW CARBON MANUFACTURING PROGRAMME (LCMP)

62

已参与低碳制造计划工厂数目*

Number of factories in the LCMP*

39

曾进行一次或两次验证的工厂数目*

Number of factories that have been verified once or twice*

85,000

参与低碳制造计划企业的总员工数目*

Total number of employees in LCMP-participating companies*

2010

低碳制造计划于2010年开展

The LCMP was launched in 2010

*截至2013年9月

*as of 30 Sept 2013



我们在这里 Why we are here

为了遏止自然环境的恶化，创造人类与自然和谐相处的美好未来。

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

wwf.org.hk/lcmp

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香港新界葵涌葵昌路8号万泰中心15楼世界自然基金会香港分会

WWF-Hong Kong, 15/F, Manhattan Centre, 8 Kwai Cheong Road, Kwai Chung, New Territories.

Tel: (852) 2526 1011, Fax: (852) 2845 2734, Email: wwf@wwf.org.hk