



TJenvironcom , founded in 2014

天津环境和可持续发展委员会是 2014 年成立的

Established with the goal of providing a platform for members to discuss and increase awareness of issues pertaining to environmental awareness and sustainability on a commercial and individual level, and to actively identify, develop, and to promote real world projects that can have a positive effect either on the environment or sustainability.

Since it's founding, the committee has held 2-3 events a year, as well as the annual TReC and TECC programs, and was twice selected Amcham China Tianjin committee of the year, 2016 and 2018.

其成立的目标是，为会员们提供一个平台，让其在商业和个人层面讨论与环境保护和可持续发展有关问题并增强这方面的意识，并积极确认、开发并促进能够对环境或可持续发展带来积极影响的实体项目。

自从其成立，委员会一年内举办了 2-3 次活动以及年度的 TReC 和 TECC 课程。TJenvironcom 被推介为 2016 和 2018 年度中美商会天津分会最佳委员会

A photograph of a business meeting in progress. Several people in business attire are seated around a table, looking at documents and using mobile devices. A glass of water is visible in the foreground. The image is slightly blurred, focusing on the hands and devices.

The Development of the Z-Hop System

Z-Hop 系统的发展

In 2014, TJenvironcom began a project with the Westin to create an in-house herb garden using compost made by processing the Westin's kitchen preparation waste.

Following the success of this pilot, Alex Scilla [TJenvironcom co-founder and Co-chair] through his company ZF Environmental Services began a year long contract handling the recycling needs (both traditional materials as well as organics) for the Westin and St. Regis hotels.

The Z-HOP system was developed from the insights and experience gained during this period.

2014年，TJenvironcom 与威斯汀共同开展了一个项目，该项目是使用堆肥构建一个室内花园，而堆肥是通过处理威斯汀厨房的废弃物得到的。

随着这一项实验的成功，TJenvironcom 联席主席 Alex Scilla 和他企业中意环保服务与威斯汀和瑞吉酒店签订了一项长期合同，以此处理循环利用需求。

Z-HOP 系统是在此阶段获得的见解和经验开发出来的。



Why Z-HOP is **NEEDED**

The current major issues experienced in hotel waste management are generally related to the following:

- Lack of real data provided by vendors to reflect the current waste situation, as well as no reliable historical data of waste stream output.
- Lack of standards in waste classification and hygiene, leading to an increase in health and safety risks due to mis-classification of waste materials.
- Inconsistency in services provided due to continual increase in labor costs and fluctuations in commodity prices.
- Lack of stability due to the unbalanced ration of labor costs to commodity prices.
- Lack of awareness and inability to comply with existing and upcoming environmental laws

酒店垃圾管理目前的主要问题一般与以下有关：

- 缺乏供应商提供的真实数据来反映当前的垃圾情况，以及垃圾输送的可靠历史数据。
- 缺乏垃圾分类和卫生标准，由于垃圾分类错误而导致的健康和安全风险增加。
- 由于劳动力成本的不断增加和商品价格的波动而提供的服务不一致。
- 由于劳动力成本与商品价格不平衡而缺乏稳定性。
- 缺乏意识和无法遵守现行和即将出台的环境法律

How It WORKS

5 main objectives:

Insulate against market fluctuations to manage costs and maximize hotel revenue

Ongoing transparent management of the hotel waste stream

Increase in general hygiene, industry practices, and management

Long term stability and consistency of waste management

Ensure compliance with existing and upcoming environmental laws

Process standardization



Waste benchmarks tracked over time, allowing data management and analysis



Hygiene and material recovery adhere to clear and unchanging guidelines for operational health and safety (OHS)



By linking costs and payments to market benchmarks, the need to renegotiate financial terms is removed,



allowing a focus on consistency of service and standards. The use of market benchmarks allows automation of maintenance and function.

如何运行

5 个主要目标:

消除管理成本的市场波动和最大化酒店收入

对酒店垃圾流进行透明管理

加强卫生，行业实践和管理

确保长期稳定和垃圾管理的一致性

确保遵守现有和即将出台的环境法律

流程的标准化:



垃圾基准测试随着时间的推移的推移被跟踪，允许数据管理和分析



卫生和物质回收遵循明确和不变的运作健康和安全准则 (OHS)



通过将成本和支付与市场基准联系起来，需要重新协商财务条款，从而将重点放在服务和标准的一致性上。



使用市场基准可以实现维护和功能的自动化。

Environmental
Impact of Creating a

Waste Standard for Hotels

为酒店

创造垃圾标准

环境影响

01

Maximum recovery of all reusable resources

所有可再用资源的最大回收

02

Minimization of secondary pollution during the logistics process; starting from reduction of material loss, then reduction of emissions due to streamlining of transport

减少物流过程中的二次污染；从减少物质损失开始，然后减少运输的排放量

03

Positive example of industry compliance with national policy goals

行业遵守国家政策目标的正面案例

Why Hotels, 为什么选择酒店， Why China, 为什么选择中国， Why Now? 为什么选择现在？

In many cities, the combined waste output of the hotel industry is a significant percentage of daily commercial waste generated.

在许多城市中，酒店产业输出的综合垃圾在日常生产的商业垃圾中所占的比重非常大

The creation of an industry standard operating system can enable great gains in mitigating the negative consequences of industry.

创建一个行业标准操作系统可以极大地降低行业的负面影响

The lack of standardization currently creates an opportunity for immediate results following the development and implementation of a standard.

就目前而言，标准化的制定和执行能够即刻产生效果

With China's upcoming mandatory waste separation laws due to go into effect shortly, giving the hospitality industry the tools to comply is more important than ever.

随着中国即将强制执行垃圾分类法律，酒店业有据可依这一点要比以往更加重要

The Tools of Z-HOP

Z-HOP 工具

The Z-HOP Training Manual

Z-HOP 培训手册

Workers follow the guidelines set in the standard training manual, standardizing practices and operations

The hotel operator manual provides guidance for hotel management to make backed improvements and optimize their in house operations

工作人员根据培训手册中的标准指导原则，进行规范实践和操作

酒店运营商手册能够为酒店管理人员提供指导，使其能够改善和优化酒店的内部运营

The Z-HOP Equipment Suite

Z-HOP 设备组件

Using a standard suite of equipment across locations enables standardized operations throughout the Z-HOP
Equipment used includes compactors, scales, storage racks, sorting tools and hygiene/odor control tools

跨地点使用标准套装可以让 Z-HOP 网络实现标准化操作

设备使用包括压实机，刻度盘，存储架，分类工具和卫生 / 气味控制工具

Materials Recovered

Full implementation of the Z-HOP System allows for the recovery of valuable resources, and the transformation of these into new products and materials

材料回 Z-HOP 系统的全面实施能够将宝贵的资源回收，并能将这些资源转变为新的产品和材料。

ORGANICS 有机物

Food waste recovered can be transformed through our proprietary process into:

- Compost/Potting Soil
- Animal Feed
- Organic Pet Feed

通过我们的专利程序，可将回收过来的食品废弃物转变为

- 堆肥 / 盆栽土壤
- 动物饲料
- 有机宠物饲料

Hospitality Waste 酒店业特殊废品

Working with specialist processors, even frequently ignored and unsorted material streams are recaptured:

- Toiletry waste (soap bottles, toothbrushes)
- Textile waste (bedding, slippers, towels, uniforms)

与专业处理器配合工作，取回经常被忽略及不会被归类的物质

- 化妆用具浪费（肥皂瓶、牙刷）
- 纺织品废料（床上用品、拖鞋、作服）

NON- ORGANICS 非有机物

All recyclable grade materials sorted and sent back into the commodity market:

- Plastics – recycled pellet
- Papers – feedstock for mills
- Metals – remelt ingot

将所有可回收的等级材料进行分类，并送回至商品市场。

- 塑料 - 再生颗粒
- 纸张 - 工厂原料
- 金属-重熔锭

Operations waste

Frequently overlooked, the upkeep of the hotel premises creates a significant waste stream often overlooked and undiverted

- New Construction/refurbishment waste
- Regular upkeep/maintenance of hotel facilities/equipment
- Event waste

经营方面的废品 – 这种废品经常被忽视，酒店客房的维护造成的浪费经常被忽略

- 新建工程及翻新废弃物
- 对酒店设施定期保养和维护生成的材料
- 活动产生的废品

The Costs

The Benefits

成本

效益

Costs

Labor (2 Sanitation Engineers)	RMB 7000 – 8000 Month
Equipment Lease (Compactor, Scale)	RMB 500-1000 Month
Supplies	RMB 300 Month
Green Waste Processing Fees	RMB 500 Month

劳动 (2 名卫生工程师)	人民币 7000 – 8000 月
设备租赁 (压实机, 秤)	人民币 500-1000 月
工具 / 材料费	人民币 300 月
厨余有机废物处理	人民币 500 月

Benefits

Material Revenue Cash Refund	RMB 2000 – 5000 Month
Marketing Value in Kind Value Equivalent	RMB 50000 Year
Compliance/risk management Consulting Services Value Equivalent	RMB 20000 Year
Audit/Statistic Services Value Equivalent	RMB 30000 Year
Inhouse salaried man-hours saved through outsourcing of management	25 – 30 / Per Hour

回收现金退款	人民币 2-5000 月
市场宣布推广	人民币 50000 年
环保合规资讯服务	人民币 20000 年
审计 / 统计服务价值等值人民币	人民币 30000 年
节省内部员工劳动时间	25- 30 / 小时

The Z-HOP Dividend - RMB 25,000+ / Year

Z-HOP 红利 - 人民币 25,000+ / 年

Sample Products produced through Z-HOP Implementation

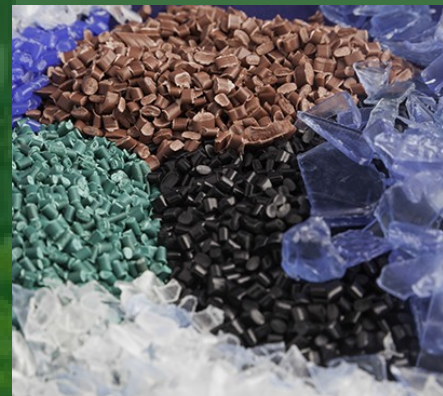
通过施行 Z-HOP 生产样本产品



Compost
堆肥



Briquetted Metals
压块金属



Extruded Pellets
膨化颗粒

How to be Involved ? 如何参与 ?

Contact *TJenvironcom* to learn how to participate in the further drafting process, or to learn how to implement the Z-HOP standard in your enterprise

联系 *TJenvironcom* 学习如何参与到进一步的立法过程，或者学习如何在你公司内部执行 Z-HOP 标准



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