SEBIZ RFI 反馈

企业名称：通用电气照明有限公司

注册地址：上海市嘉定区沪宜公路 1517 弄 88 号

联系人：赵星

联系方式：13951949079

RFI 反馈中涉及的相关技术名称：照明技术

日期：2014 年 9 月

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第一章 公司背景和资质

1.1 拟提供产品或服务方面的专业能力以及相关技术概要。公司当前或未来运营情况(计划)，如何为中美两国的经济发展提供机遇

1.1.1 拟提供产品或服务方面的专业能力以及相关技术概要

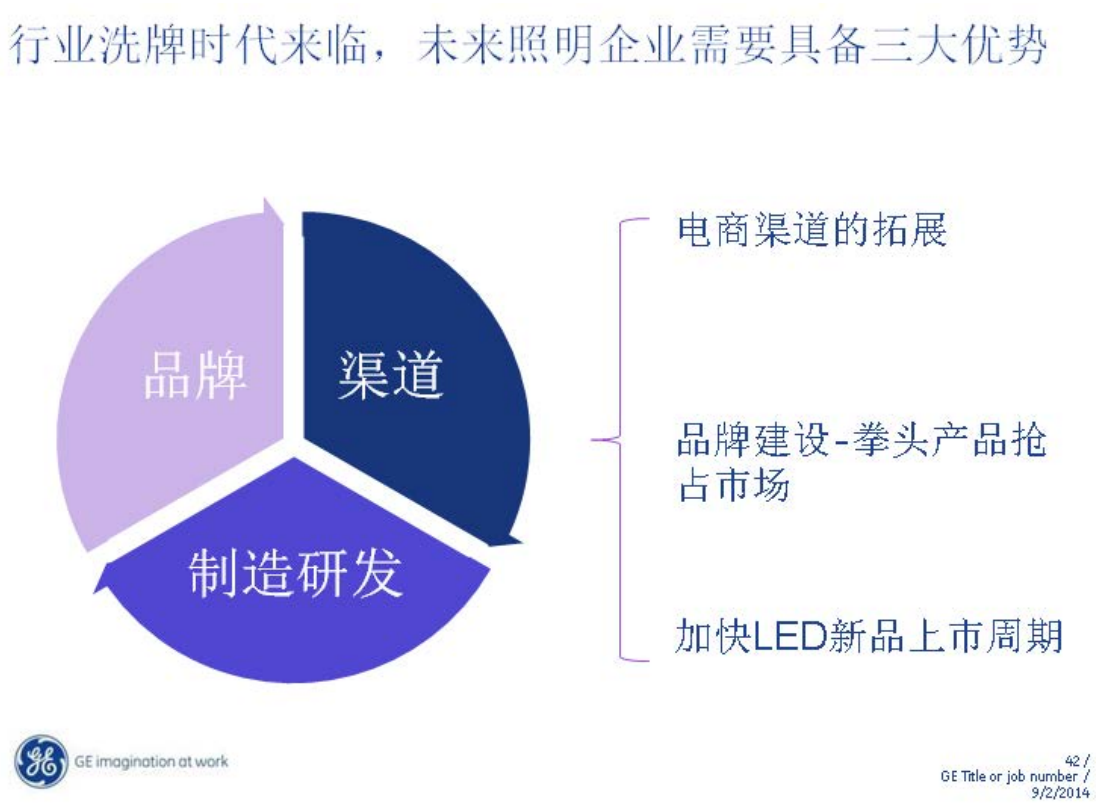
通用电气照明集团（亚洲）技术中心实验室介绍

通用电气照明集团（亚洲）技术中心实验室始建于 1997 年，专业从事光源及灯具产品的检测。实验室拥有一系列专业先进的检测设备，如积分球测试系统、光谱仪、空间光强及颜色分布测试系统、示波器、功率分析仪、寿命测试架、环境试验箱等，可以开展包括白炽灯、卤素灯、节能灯、荧光灯及镇流器、高强气体放电灯、汽车灯、LED 灯等和各种灯具产品的光电性能、安全性能、电气性能、可靠性、寿命和电磁兼容等检测活动。总投资两千多万美元，专业检测人员十余名，占地面积二千四百多平方米。

实验室的资质情况如下：

1. 2002 年获得了中国合格评定国家认可委员会（CNAS）认可
2. 2004 年获得了美国 NVLAP 认可
3. 中国能效标识管理中心备案的能效检测实验室
4. 美国环保署认可的能源之星照明产品检测实验室
5. 美国 UL 授权的 WTDP 实验室

1.1.2 公司当前或未来运营情况(计划)，如何为中美两国的经济发展提供机遇



通用电气公司（GE）作为一家全球领先的科技、服务和金融公司，是当前全球最大的多元化企业，一直致力于建立面向未来的全球合作伙伴关系。自 1906 年起，GE 就开始发展同中国的贸易，是中国最活跃、最具影响力的外国公司之一。而 GE 家电与照明通过业界领先的技术和照明解决方案，也一直致力于为客户打造节能新主张、创造生产新动力、实现盈利新高度。

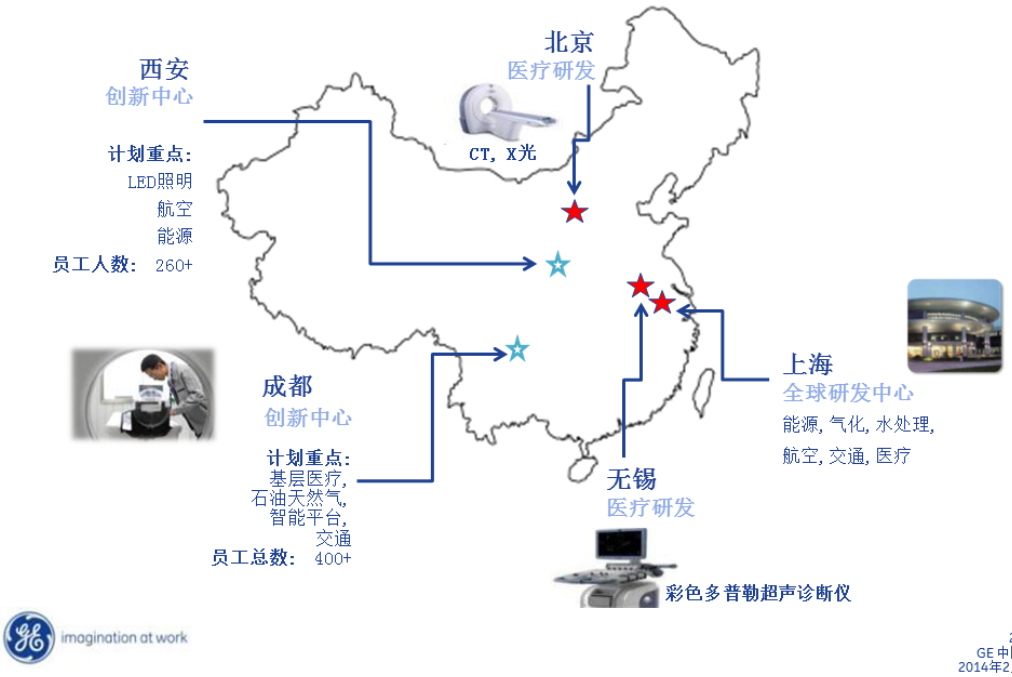
近年来，全球更聚焦于节能环保，而中国国务院印发的《“十二五”节能减排综合性工作**方案**》也提出要“调整能源结构、发展绿色能源”。而 GE 早就自发地响应这个全球性的绿色号召。自 2005 年起， 从美国起，GE 开始在全球范围内实行“绿色创想”项目。2006 年，GE 与中国发改委签备忘录，启动”绿色创想”战略。此后，31 款”绿色创想”认证产品行销中国市场，自 2006 年来创造总计近 30 亿美元的收入。GE 照明的 LED 节能环保产品等也被广泛应用于各个领域。

在发电及水处理领域，GE 在中国拥有 5 个合资或独资企业，有 300 余台重型燃气轮机、70 台蒸汽轮机及 1000 余台风机在运作；GE 为中国提供洁净水解决方案，如用于“鸟巢”的中国首个大型公共建筑雨洪回用技术；GE 作为全世界最大的飞机发动机制造商之一，与中国并肩高飞；参与中国铁路建设，如 78 台 GE NJ2 柴油机车运行在青藏线上，ITCS 信号工程运用在青藏线上。

2010 年自美国起，以“绿色创想”“为基础，GE 在全球范围内发起”绿色挑战”活动，促进全球绿色能源发展。2011 年“绿色挑战“来到中国，投资 10 亿人民币，旨在为企业、创业者、投资者以及科研机构搭建一个共同分享创意、推动清洁能源革命的平台。

GE 一直致力于与中国企业一起走向世界，同中国多家企业建立战略合作伙伴关系。同时，GE 研发中心遍布全球，在中国西安、上海、北京、成都都拥有自己的创新研发中心，帮助培养全球化人才

中国研发创新足迹



GE 也同时致力于帮助中国人民提高生活水平，关注教育、环保、医疗、公共服务、敬老。2013 年有超过 4000 名 GE 志愿者在中国 22 个城市 200 个项目中贡献了 22000 个志愿者服务小时。

1.2 公司资质调查表

信息项	回答

公司背景

公司名称	通用电气照明有限公司
地址	上海市嘉定区沪宜公路 1517 弄 88 号
城市，省份，邮编	上海，201802
其他主要地址	上海市浦东新区张江高科技园区华佗路 1 号 1 号楼 7 层
网站	http://www.gelighting.com/LightingWeb/apac/
员工数（2013）	约 2500 人
营运时间	一八九二年至今
营运时间（在中国）	一九九四年六月六日至今
在中国的营运情况说明	企业一般经营情况 企业近三年销售额（单位：万元）：2011年 80715；2012年 89493；2013年 83548 企业近三年纳税额（单位：万元）：2011年 3575；2012年 4589；2013年 4475
在美国的营运情况说明	总部: 东克利夫兰，俄亥俄州, 始于 1913 年 •营收 20.7 亿美元 •全球 13,000 名员工 •如今全球拥有 21 座工厂 •全球约 13,000 名员工 •六大技术中心，600 名工程师

主要产品/服务	公司拥有 13000 多名员工，业务遍及全球 100 多个国家和地区，销售 Reveal 和 Energy Smart 消费者品牌，以及 Evolve、GTx、Immersion、Infusion、Lumination 和 Tetra 等商业品牌的产品，以上商标均为 GE 所有。通用电气（纽约证交所交易代码:GE）致力于为打造一个更美好的世界而努力。
主要市场/客户	

公司联系人

办公地址	上海市浦东新区张江高科技园区华佗路 1 号 1 号楼 7 层
姓名	赵星
职称	销售
邮箱	Xing.Zhao@ge.com
电话	13951949079
推荐客户使用的技术	
项目 1	
客户名称	泛海集团办公楼项目

技术及项目规模	照明技术 55 万平方米
项目地址	北京，济南，杭州，武汉
项目联系人	刘登星
职称	销售
邮箱	dengxing.liu@ge.com
电话	13311214326
项目 2	
客户名称	北京华润集团-凤凰置地广场项目
技术及项目规模	照明技术 26 万平方米
项目地址	北京
项目联系人	刘登星
职称	销售
邮箱	dengxing.liu@ge.com
电话	13311214326
项目 3	
客户名称	嘉里建设-嘉里广场项目
技术及项目规模	照明技术 12 万平方米
项目地址	深圳
项目联系人	王萌葭
职称	大客户经理
邮箱	emmy.wang@ge.com
电话	13823725092

公司认证

公司获得的相关认证（中国或国际）	1.ISO9001:2008 2.ISO14001:2004 GB/T 24001-2004 ISO9001:2008 GB/T 19001-2008

财务方案

可行的财务方案（直接购买，合同能源管理，节能效益分享模式等）	直接购买，合同能源管理，节能效益分享模式等
项目融资合作伙伴 1	
项目地点	苏州
客户	毅嘉电子（苏州）有限公司
技术和项目规模	GE Starcoat T5、GE 性能板 LED
项目融资规模	近 200 多万人民币
融资类型	分季度改造/自筹资金
项目联系人姓名	高世红

项目联系人邮箱	18913542829@126.com
项目联系人电话	18913542829
项目公司名称	苏州晟世能源管理有限公司
融资公司名称	苏州晟世能源管理有限公司
融资公司联系人姓名	高世红
融资公司邮件	18913542829@126.com
融资公司电话	18913542829
项目融资合作伙伴 2	
项目地点	苏州
客户	苏州华瑞塑胶电子有限公司
技术和项目规模	伺服液压动力系统节能、18 台大型注塑机节能
项目融资规模	近 200 多万人民币
融资类型	节能效益分享/自筹资金
项目联系人姓名	高世红
项目联系人邮箱	18913542829@126.com
项目联系人电话	18913542829
项目公司名称	苏州晟世能源管理有限公司
融资公司名称	苏州晟世能源管理有限公司
融资公司联系人姓名	高世红
融资公司邮件	18913542829@126.com
融资公司电话	18913542829

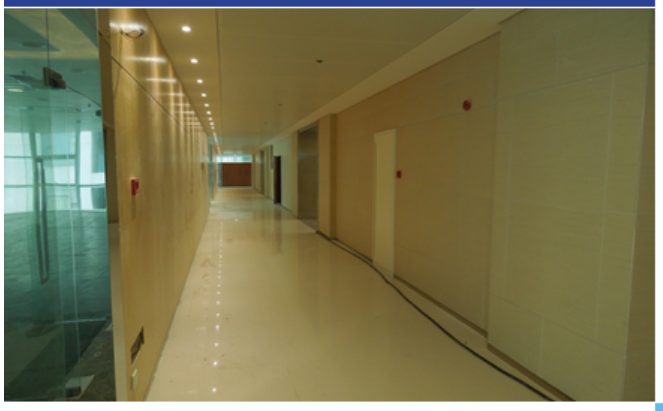
第二章 拟提供产品和服务的描述

2.1 拟提供产品或服务的细节描述：照明技术

2.2 通用电气精选成功案例

节能率 70%
投资回报期
2.7 年

展丰大厦，中国



T8　　LED筒灯　　LED射灯

客户需求情况：

- 除了优质的照明效果和令人满意的照度，客户对最终解决方案的性价比尤为看重。

GE照明解决方案：

- GE照明为客户提供了多种LED照明产品，包括LED 15W和30W筒灯、7W LED射灯和T8等产品。这套解决方案不仅能够提供理想的照明效果，还能大大降低能耗和维护成本。在测试比较了飞利浦的照明产品后，客户最终选择了GE照明。

节能效益

~系统节能率高达70%
~每年节约能源费用429,570RMB

环保效益

每年减少375084千克二氧化碳排放
=72辆汽车停驶或
=拯救622亩的树木

GE石油&天然气新泻县工厂，日本

节能率 70%
投资回报期
1.8 年

LED 110W 类型

客户需求情况：

- 这个项目的目标是要为GE石油&天然气位于日本的工厂安装LED产品，既要保持原先的明亮度，又能节约能耗。

GE照明解决方案：

- 我们安装的LED照明产品可以帮助目标客户节省70%的能耗。

节能效益

~ 每年节约能源费用488,617RMB*

~ 1.8年投资回报期

环保效益

每年减少297049千克二氧化碳排放

=减少57辆汽车停驶或

=拯救493亩的树木

*：1 USD= 6.2165 RMB

节能率
55%
投资回报期
2.2 年

Arvind Mills

LED T8

客户需求情况:

- Arvind Mills是印度纺织品制造商，是全球第三大牛仔服生产商，正在寻找照明解决方案，减少维修费用，最小化能源消耗，满足他们的回收需要，提升整体外观，既然建筑中有大量开放空间，照明设计必须提供充足照明以保证员工安全、高效工作。

GE照明解决方案:

- Arvind Mills希望GE照明部能够为其5574平方米的工作区域提供更高效的照明，GE通过对工厂试验和评估，建议将其FTL battens替换为拥有40,000小时寿命的LED T8灯管。

节能效益

~ 55% 能源节约
~ 达到 2.5 年的投资回报期
~ 低眩光，均匀照明

环保效益

每年减少 **546** 吨二氧化碳排放
= 减少 **104** 辆汽车停驶或
= 拯救 **947** 亩的树木

节能率
122%
投资回报期
0.88 年

圣母学院，菲律宾

客户需求情况:

- 坐落于繁荣马卡迪市，菲律宾圣母学院是一所享负盛名的大学，出于能源节约和保护环境的考虑，圣母学院以及所有菲律宾的大学都将逐渐转变为更加环保的LED型学校。

GE照明解决方案:

- GE照明提供了一套将5000套40瓦荧光灯替换为更加值得信赖的GE LED T8 18瓦 Daylight产品，同时我们也承诺更长的担保期。
- 另外，在一些礼堂，原来的Dichroic（50瓦）也被替换为16瓦的GE MR16。

节能效益

~ 每年节约能源 **1,037,000** RMB
~ 更低的维修更换费用
~ 122%能源节能率

环保效益

每年减少 **395,833** 千克二氧化碳排放
=减少 **76** 辆汽车停驶或
=拯救 **858.7** 亩的树木

*: **1 USD= 6.10 RMB**

2.3 产品的技术规范和质保条款

2.3.1 产品的技术规范

2.3.1.1 T8 灯管

产品特点与技术规格

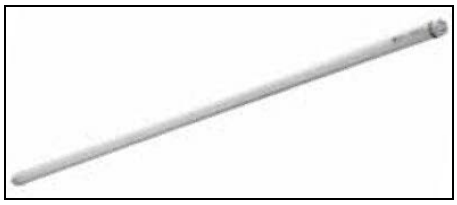
•长寿命，高光效
•性能版寿命仍然高达 40,000 小时，有效降低照明系统的替换和维护成本
•发光角度更大 照明覆盖面积更大
•高光效，光源效率可达 97lm/w, 有效实现节能安装/ 替换便捷
•使用配套的 GE 启辉器，可直接替换电感镇流器系统下的传统 T8 荧光灯
•完整的安全特性和电磁保护安全装置高质光效
•光色均匀，始终如一；为零售，商业照明营造优雅的灯光氛围
•不含 UV，防紫外，绿色环保

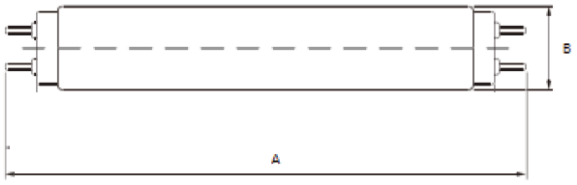
应用场合

•室内照明超市、地下车库、办公室、仓库

尺寸图

单位：mm





瓦数	A 长度 mm	B 直径 mm
9W/12W	600	28
18W/23W	1200	28
27W	1500	28

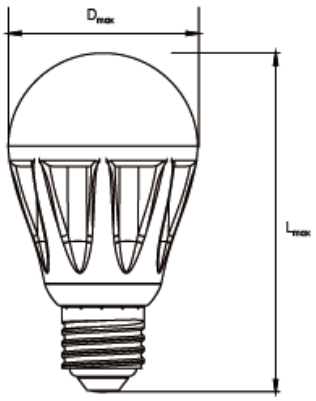
2.3.1.2 LED 调光球泡

LED 调光球泡，在 LED 节能技术基础上，更增加了调光功能，提供更进一步的节能技术，明暗随心，家居及酒店照明的更节能选择，同时该产品拥有 210 度出光角，LED 室内照明感受更佳。

产品特点
•可配合前切或后切调光器调光
•210 度大角度发光
•符合美国能源之星 LED 球泡标准
•达到欧盟 A 级节能标准
•提供与传统 40W/60W 白炽灯几乎完全相同的照明效果
•相比 GE 的传统白炽灯节能高达 85%
•安全环保无伤害，不含红、紫外线辐射
•超长寿命，长达 25 年*，超低维护成本
•标准 E27 灯头，可直接替换白炽灯和节能灯，适合普通消费者
*按每天使用 2.5 小时计算

尺寸图

单位：mm



直径 D_{max} (mm)	长度 L_{max} (mm)
69	110

2.3.1.3 MR16 低电压射灯　一体式调光

全新第三代低电压 MR16 低电压可调光射灯，采用标准 IEC 尺寸设计，直接替换传统卤素灯杯。以极低的能耗提供与传统 35W/50W 卤素灯相同的照度和照明效果；以高品质的 LED 技术提供可靠的高性能 LED 照明解决方案。

产品特点
•高亮度 光源光通输出最高达 520lm 远高于普通的 LED MR16 产品
•更有小角度光角设计 超高中心光强，最高达 3500cd，加强重点照明的效果
•光通量和中心光强完全到达传统卤素灯 35W/50W 效果
•高功率因素 0.9 更省电
•与传统卤素灯相比，节能高达约 80%以上
•使用寿命长，产品可靠性高，无需经常替换，减少维护成本
•标准 IEC 尺寸，标准灯头，与现有电子变压器兼容
•可调光，调光范围 20%-100%
技术规格
•额定平均寿命：25,000 小时
•多种色温可供选择：2700K/3000K/4000K
•显色性：>80

2.3.1.4 LED 筒灯

GE 照明首次推出 LED 室内筒灯，一体化光源灯具设计轻松替换传统灯具。承诺更好的品质和更高的照明效率，为办公场所、商场、酒店多场合打造绿色照明解决方案。

产品特点

•显色指数可达 Ra80，满足各种室内应用要求；优良的均匀漫反射和眩光控制，营造舒适照明氛围

•15W 替代 26/29W 节能灯灯具，对比 GE 传统灯具，照度提高 20%同时节能 55%

•按照正常耗电计算，每年可节省电量近 100 度

•可折叠电源设计方便低顶棚安装，符合低层高建筑趋势要求

•卡扣式弹簧片固定灯具，保证安装安全

•无汞排放，不含紫外红外线

技术规格

•额定平均寿命：25,000 小时(L70)

•色温：3000K/4000K/5000K

2.3.1.5 LED 支架灯

支架灯造型简洁美观，结构紧凑，为顾客带来全新的柔和 LED 照明体验。

产品特点
•比 GE 传统 T8 荧光灯节能 55%，比 T5 荧光灯节能 42%
•一体化设计，安装简易，支持 12 米以内串联，减少布线成本
•特殊表面光学设计，低眩光，照明效果更均匀
•无汞，不含紫外红外线
技术规格
•额定平均寿命：45,000 小时(L70)
•多种色温可供选择：4000K/5000K
•显色性：80
•高功率因数：>0.9

2.3.1.6 LED 平板灯

GE 最新设计嵌入式 LED 平板灯具，提供新的通用照明方案。

产品特点和技术规格

•相比荧光灯灯具，节能 30%以上
•使天花更整洁，照明空间更生动
•节约用灯数量
•高可靠性， 低维护成本

2.3.1.7 专业型 T5 Highbay

产品特点

•GE 独有的反射器设计，效率可高达 92%
•更多灯管配置数量选择，更便于灵活布灯和配光设计，实现节能的最大化
•配合使用 GE StarCoat T5 荧光灯管，实现更高流明维持率和更长寿命
•通过 10 万次 0.5G 三维振动测试，更适用于工矿企业工作环境
•高效节能，与传统 HID 灯具相比，节能可达 50%
•4 种安装方式可选：吸顶，单杆，双杆及链式安装，需另外定购相应安装附件
•二种反射器材质可选：Miro4, 320G
•电压/频率：220~240V, 50/60Hz

备注：我公司将根据具体产品提供相应质保

2.4 设计方案和实施计划

2.4.1 设计方案

1、 LED 灯管设计方案

	原方案	GE 节能方案	原方案	GE 节能方案
产品	T8 荧光灯	LED T8 灯管	T8 荧光灯	LED T8 灯管
功率（W)	18	9	36	18
全寿命周期节能分析	LED 灯管寿命 5 万小时，全寿命周期节能 450KW/H		LED 灯管寿命 5 万小时，全寿命周期节能 900KW/H	
更换方式	1：1 替换		1：1 替换	

2、 LED 球泡设计方案

	原方案	GE 节能方案	原方案	GE 节能方案
产品	40W 白炽灯	LED 球泡	60W 白炽灯	LED 球泡
功率（W)	40	8	60	12
全寿命周期节能分析	LED 灯管寿命 2.5 万小时，全寿命周期节能 800 KW/H		LED 灯管寿命 2.5 万小时，全寿命周期节能 1200KW/H	
更换方式	1：1 替换		1：1 替换	

3、 LED MR16 设计方案

	原方案	GE 节能方案	原方案	GE 节能方案
产品	35W 卤素灯	LED MR16 灯杯	50W 卤素灯	LED MR16 灯杯
功率（W)	35W	7	50	7
全寿命周期节能分析	LED MR16 灯杯 寿命 2.5 万小时，全寿命周期节能 700 KW/H		LED MR16 灯杯寿命 2.5 万小时，全寿命周期节能 1075KW/H	
更换方式	1：1 替换		1：1 替换	

4、 LED batten 设计方案

	原方案	GE 节能方案	原方案	GE 节能方案
产品	18W 荧光灯	LED batten	36W 荧光灯	LED batten
功率（W)	18	9	36	18
全寿命周期节能分析	LED batten 寿命 5 万小时，全寿命周期节能 450 KW/H		LED batten 寿命 5 万小时，全寿命周期节能 900KW/H	
更换方式	1：1 替换		1：1 替换	

5、 LED 筒灯设计方案

	原方案	GE 节能方案	原方案	GE 节能方案
产品	18W 荧光筒灯	LED 筒灯	26W 荧光筒灯	LED batten
功率（W)	18	10	26	15
全寿命周期节能分析	LED batten 寿命 2.5 万小时，全寿命周期节能 200 KW/H		LED batten 寿命 2.5 万小时，全寿命周期节能 275KW/H	
更换方式	1：1 替换		1：1 替换	

6、 LED Backlit Troffer 设计方案

	原方案	GE 节能方案	原方案	GE 节能方案
产品	318 格栅灯	LED Backlit Troffer	314 格栅灯	LED Backlit Troffer
功率（W)	54	36	42	36
全寿命周期节能分析	LED Backlit Troffer 寿命 2.5 万小时，全寿命周期节能 450 KW/H		LED Backlit Troffer 寿命 2.5 万小时，全寿命周期节能 150KW/H	
更换方式	1：1 替换		1：1 替换	

7、 T5 Highbay 设计方案

	原方案	GE 节能方案	原方案	GE 节能方案
产品	250W 金卤灯	T5 Highbay	400W 金卤灯	T5 Highbay
功率（W)	250	4x28W	400	4X54W
全寿命周期节能分析	T5 Highbay 寿命 3.6 万小时，全寿命周期节能 4968 KW/H		T5 Highbay 寿命 3.6 万小时，全寿命周期节能 6624KW/H	
更换方式	1：1 替换		1：1 替换	

2.4.2 实施计划

项目的整体实施将由具有 EMC 资质的公司（以下简称“EMC 公司”）负责。EMC 公司将任命资深的项目经理，负责合同操作全过程中的管理,以确保顺利交货，优质执行合同。针对每个具体项目，GE 将安排具体负责的销售经理，配合 EMC 公司监督项目全过程的实施。GE 将委派项目技术经理负责项目执行全过程中的技术支持并指派服务人员配合项目经理做好现场售前勘察，售后现场服务工作。

2.5 国家以及江苏省节能减排“十二五”规划

从国家层面来看，十二五计划里特别强调了优化产业结构，淘汰落后产能的重要性，对新建项目例如大型公共建筑、商用建筑、民用建筑提高项目节能、环保、土地、安全等准入门槛，严格固定资产投资项目节能评估审查、环境影响评价和建设项目用地预审，完善新开工项目管理部门联动机制和项目审批问责制。其中公共机构的单位建筑面积能耗 2015 年和 2010 年相比要减少 21%，城镇新建绿色建筑标准执行率 2015 年比 2010 年要减少 15%

在强化建筑节能方面，严把设计关口，加强施工图审查，城镇建筑设计阶段 100%达到节能标准要求。加强施工阶段监管和稽查，施工阶段节能标准执行率达到 95%以上。严格建筑节能专项验收，对达不到节能标准要求的不得通过竣工验收。从江苏省的十二五节能目标来看“十一五”期间，江苏省节能目标为单位 GDP 能耗下降 20%，与全国平均水平及多数省份持平，而国家“十二五”各地区节能目标将江苏省省列为一类地区，高出全国平均目标 2 个百分点，“十二五”期间，江苏省仍处于城市化快速提升阶段，预计 2015 年城市化率达到 63%，比“十一五”末提高 2.4 个百分点，城市化水平的不断提高必将带动能耗持续增长

从建筑领域来看，江苏省严格执行建筑节能标准。强化新建建筑节能标准执行全过程监管，新建建筑全面执行 50%及以上节能设计标准，有计划、分步骤实施节能 65%设计标准，2013 年起，实施居住建筑节能 65%强制性标准，到 2015 年，全省新建公共建筑执行建筑节能 65%标准的比例达 50%以上。积极发展绿色建筑。每年新建立 4～5 个建筑节能和绿色建筑示范区，推进建筑能耗测评标识和绿色建筑星级标识，初步形成符合江苏省情的建筑节能和绿色建筑示范区建设指标体系。推进既有建筑节能改造。

开展大型公共建筑采暖、空调、通风、照明等节能改造，推行用电分项计量。

——绿色照明。实施“中国逐步淘汰白炽灯路线图”，分阶段淘汰普通照明用白炽灯等低效照明产品。推动白炽灯生产企业转型改造，支持荧光灯生产企业实施低汞、固汞技术改造。积极发展半导体照明节能产业，加快半导体照明关键设备、核心材料和共性关键技术研发，支持技术成熟的半导体通用照明产品在宾馆、商厦、道路、隧道、机场等领域的应用。推动标准检测平台建设。加快城市

道路照明系统改造，控制过度装饰和亮化。“十二五”时期形成 2100 万吨标准煤的节能能力。

——节能产品惠民工程。加大高效节能产品推广力度。民用领域重点推广高效照明产品、节能家用电器、节能与新能源汽车等，商用领域重点推广单元式空调器等

表 1　“十二五”时期主要节能指标

指标	单位	2010 年	2015 年	变化幅度/变化率
建筑				
北方采暖地区既有居住建筑造面积	亿平方米	1.8	5.8	4
城镇新建绿色建筑标准执行率	%	1	15	14
公共机构				
公共机构单位建筑面积能耗	千克标准煤/平方米	23.9	21	[-12%]
公共机构人均能耗	千克标准煤/人	447.4	380	[15%]

注：[　] 内为变化率。

表 2　“十二五”时期淘汰落后产能一览表

行　业	主要内容	单位	产能
白炽灯	60 瓦以上普通照明用白炽灯	亿只	6

第三章 推荐的财务方案

资金提供方及其与供货商的关系:
苏州晟世能源管理有限公司；授权经销商

合同的条款与期限:
照明合同一般不超过三年。如果节能量不错，可采用效益分享型合同，按月按比例付款；如果成本回收期过长，就不能用效益分享型合同，可采用节能效益支付型或节能量保证型或分期付款等，要按具体情况而定。

依据项目大小可提供的资金范围
根据项目规模大小和成本回收期的时间，可有几种方式：一是自筹款；二是银行；三是专业的项目管理投资商；四是节能行业协会担保进行专项融资

还款方式及时间安排
效益分享型项目，最为重要的是照明的燃点时间和电费单价，还款方式要与节能量挂钩，一般不超过三年。

理想的融资方案
如果项目合同金额较大，且节能量还可以，可直接打包给银行，每月的还款直接进指定帐户。或者直接打包给第三方专业的节能投资机构。另外，EMC 公司所在节能行业协会可为 EMC 公司做担保进行专项融资，前提是 EMC 公司要对客户资信做评估。

成功融资方案示例
苏州晟世能源管理有限公司曾与光大银行有过合作，后因客户分批改造，流动资金够用，就没有借用银行融资。是将合同抵押给银行，同时对客户资信做评估，对产品供应商做资信评估，然后银行一次性将款付出，客户按月付款至银行指定帐户。

第四章　费用提案和节能效益

4.1 项目机会总结

	商务区A (WIZ)	商务区B (GDL)
太阳能光伏	9 个楼宇户主有兴趣安装总共 8MW 屋顶光伏和车棚光伏系统。 □	正在寻找现场发电的成套商业化太阳能发电系统的供应商。 □
照明技术	10 个楼宇户主、大约有 777，000 m2 楼宇面积可以将现有的白炽灯和荧灯具进行 LEDs 更新换代。 ■	正在寻找可以充分利用自然光并且最大幅度降低人工照明能耗的先进的照明设备的供应商。 ■
能源管理系统	10个地方的45座楼宇有兴趣对他们系统进行升级改造。	正在寻找销售先进能源管理系统(硬件和软件)的供应商。如供暖、制冷以及照明系统等 □
电动汽车充电设施	11个地区有兴趣安装近60个电动汽车充电站。	正在寻找销售简易并且高效、低成本的先进电动汽车充电设备和服务站的供应商。 □
建筑外围技术		正在寻找先进的建筑外围相关技术的供应商以提供楼宇外壳和内核节能的基础。 □
供热和制冷系统		正在寻找可以高效维持室温和空气质量的先进的加热和制冷系统的供应商 □
太阳能热水系统		正在寻找利用太阳能热水系统为楼宇和区域提供规模化室内热水的供应商。 □
储能系统		正在寻找销售涵盖可再生能源集成、电网操控、电动汽车以及需求侧管理的先进的整套能源储存系统的供应商 □
可持续的城市规划和设计公司.		正在寻找专注于可持续性设计并建造高效楼宇的供应商 □

4.2 费用提案表

商务区: [ ] WIZ [ ] GDL

2-费用提案表：照明						
#	产品/服务技术名称	(B)单位	(C) 直购费用/单位（RMB）	(D) 可用财务方案	(E) 预计节能量	(F) 备注
1	LED 照明	T8 灯管	140-200 元	改造项目-节能效益分享模式	比 T8 日光灯节能 77.8%	注：以 18w 为例，T8 荧光灯光通为 900LM，T8LED 光通为 1600LM。故节能 77.8%
2	LED 照明	A19 球泡	120-170 元	改造项目-节能效益分享模式	比传统观白炽灯节能 85%	--
3	LED 照明	MR16 灯杯	135-150 元	改造项目-节能效益分享模式	与传统卤素灯相比，节能高达 80%	--
4	LED 照明	LED 筒灯	275-360 元	改造项目-节能效益分享模式	15W 替代 26/29W 节能灯灯具，对比 GE 传统灯具，照度提高 20%同时节能 55%	--
5	LED 照明	LED 支架灯	232-445 元	改造项目-节能效益分享模式	比 GE 传统 T8 荧光灯节能 55%，比 T5 荧光灯节能 42%	--
6	LED 照明	LED 平板灯	760 元	改造项目-节能效益分享模式	相比荧光灯灯具，节能 30%以上	--
7	T5 照明	T5 高天棚灯	1160-1250 元	改造项目-节能	高效节能，与传	--

				效益分享模式	统 HID 灯具相比，节能可达 50%	

报价与融资方案的描述：

合同的条款与期限：

照明合同一般不超过三年。如果节能量不错，可采用效益分享型合同，按月按比例付款；如果成本回收期过长，就不能用效益分享型合同，可采用节能效益支付型或节能量保证型或分期付款等，要按具体情况而定。

依据项目大小可提供的资金范围

根据项目规模大小和成本回收期的时间，可有几种方式：一是自筹款；二是银行；三是专业的项目管理投资商；四是节能行业协会担保进行专项融资

还款方式及时间安排

效益分享型项目，最为重要的是照明的燃点时间和电费单价，还款方式要与节能量挂钩，一般不超过三年。

理想的融资方案

如果项目合同金额较大，且节能量还可以，可直接打包给银行，每月的还款直接进指定帐户。或者直接打包给第三方专业的节能投资机构。另外，EMC 公司所在节能行业协会可为 EMC 公司做担保进行专项融资，前提是 EMC 公司要对客户资信做评估。

成功融资方案示例

苏州晟世能源管理有限公司曾与光大银行有过合作，后因客户分批改造，流动资金够用，就没有借用银行融资。是将合同抵押给银行，同时对客户资信做评估，对产品供应商做资信评估，然后银行一次性将款付出，客户按月付款至银行指定帐户。

注：将由 EMC 公司提供设备购买、安装和售后服务涉及的设备成本、税费、劳务费和服务费等详细信息；全寿命周期节能效益分析请见 2.4.1.

SEBIZ RFI Response

Business Name: GE Lighting Co., Ltd

Primary Address： No.88, Lane 1517, Huyi Road,

Jiading District, Shanghai

Contact Person: Zhao Xing

Contact Information: 13951949079

Technologies Included: Lighting Technologies

Date： Sep.2014

SEBIZ RFI Response

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Technologies included: Lighting Technologies

Table of Contents

Section I Company Background and Qualifications

1.1 GE Lighting Asia Technology Center Laboratory Introduction

GE Lighting Asia Technology Center Laboratory was established in 1997. It provides the professional testing services for lighting products, which cover the traditional lamps, LED lamps, Fixtures and Ballasts. Up to 2014 the lab has grown rapidly to 20M USD of total investments, 11 testing professionals and with the space of 2403 SM.

The lab owns a whole series of advanced equipment/instruments for lighting products testing. These testing areas include Safety, Electronics, Photometry, Goniometry, Reliability, EMC and Life etc.

The lab has won the following the accreditations and certifications:

Accredited by CNAS in 2002

Accredited by NVLAP in 2004

China Energy Label testing lab

Energy Star testing lab

UL WTDP lab

1.2 Current or planned operations of GE Lighting Co., Ltd and how they might offer economic development opportunities for China and the United States.

GE (NYSE: GE) - Imagination at Work – is an advanced global technology, service and finance company. Widely recognized as the world's largest multi-business company, GE is committed to establishing global partnerships into the future. GE started doing business in China as early as 1906 and has been considered one of the most active foreign companies in the country ever since. GE Appliances and Lighting has been delivering energy efficiency, productivity and profitability for customers through industry-leading technology and lighting solutions.

In recent years, the world has shifted its focus to energy saving. The State Council of China has also issued a Comprehensive scheme on energy saving and emission reduction during the 12th Five-Year-Plan and required to adjust the energy structure and develop clean energy. And GE has already responded to this global energy-saving trend.

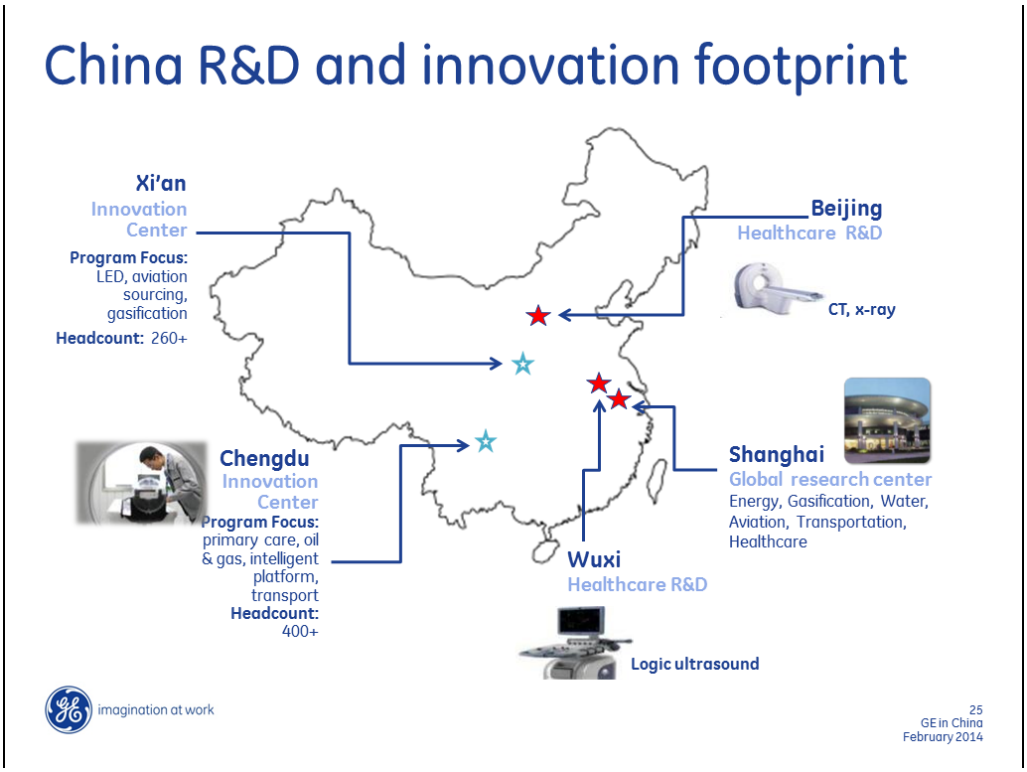
Since 2005,starting from the United States, GE has been rolling-out its prestigious "Ecomagination" initiative across the globe. In 2006, GE signed an eco MOU with National Development and Reform Commission to collaboratively promote and develop ecomagination technologies in China. More than 30 types of ecomagination products are at work now in China, helping GE reach a total of 3 billion US dollar while promoting the Green Energy development in China. Products such as the energy-efficient GE LED lighting fixtures are commonly used in different fields.

In power and Water sector, GE has 5 established facilities in China with more than 300 heavy duty gas turbines, 70 steam turbines and over 1,000 wind turbines servicing China today; GE provides clean water solutions in China, such as the first-ever rainwater recycling system in China National Stadium (Bird's Nest); As one of the largest aircraft engine manufacturers in the world,GE is flying higher together with China; And GE is

also involved in China's freight transportation-its 78 GE NJ2 diesel locomotives running on QTR line and its ITCS signaling project on QTR line,etc.

In 2010, based on "Ecomagination", GE first launched its "Ecomagination Innovation Challenge" in the United States in the direction of a cleaner and safer world. And in 2011, with a 1 billion investment, GE brought its "Challenge" to China, now an established platform to accelerate innovation sharing and green energy revolution.

GE is going global with Chinese partners, partnering with national champions. Also, GE has set its global research footprint and build Innovation Centers in inland China in Xi'an, Chengdu, Beijing and Shanghai to develop global talents.



Meanwhile, GE is also engaged in improving the quality of life for Chinese people with a focus on education, environment, healthcare, community services and elderly care. In 2013, 4,000 GE volunteers contributed 22,000 hours on almost 200 projects in 22 locations in China.

1.3 ATTACHMENT A: Company Qualifications Questionnaire

Informational Item	Response

COMPANY BACKGROUND

Company Name	GE Lighting Co., Ltd
Address	No.88, Lane 1517, Huyi Road, Jiading District, Shanghai
City, State/Province, Postal Code	Shanghai, 201802
Other Major Location(s)	7/F, Building 1, No.1 Huatuo Road, Zhangjiang Hi-Tech Park, Pudong, Shanghai, China
Website	http://www.gelighting.com/LightingWeb/apac/
Number of Employees (2013)	About 2500
Number of Years In Operation	Since 1892
Number of Years In Operation (in China)	Since 1994
Description of operations in China	Sales Revenue(RMB): 2011: 807,150,000 2012: 894,930,000 2013: 835,480,000
Description of operations in the US	HQ: East Cleveland, Ohio, since 1913 $2.7 billion revenues ~13,000 employees worldwide Transforming from lamp and ballast business to solutions-based business Light commercial, industrial, municipal and residential settings. Credited with lighting some of the world's most recognized landmarks and places: -Statue of Liberty - Washington Monument - Golden Gate Bridge - London Tower Bridge (England) - Doge's Palace (Italy) - Grand Palace of Peterhof (Russia) - Beijing Olympics (China) - World Cup Stadiums (Brazil)

Primary Products/Services	
Primary Market/Customers	7-ELEVEN, Marriott HOTELS & RESORTS, Walmart, Sainsbury's, GraybaR works to your advantage, CITY OF SYDNEY, SEIYU, Auchan 欧尚, GRAINGER FOR THE ONES WHO GET IT DONE

COMPANY CONTACT PERSON

Office Location	7/F, Building 1, No.1 Huatuo Road, Zhangjiang Hi-Tech Park, Pudong, Shanghai, China
Name	Zhao Xing
Title	Sales
Email	Xing.Zhao@ge.com
Phone	13951949079

CUSTOMERS USING PROPOSED TECHNOLOGY

Project 1

Client Name	Fanhai Group-Fanhai Building
Technology and Project Size	Lighting Technologies 550,000 M^2
Project Location	Beijing, Jinan, Hangzhou, Wuhan
Project Contact Name	Dengxing Liu
Title	Sales
Email	dengxing.liu@ge.com
Phone	13311214326

Project 2

Client Name	Beijing Huarun Group-Phoenix LandmarkPlaza
Technology and Project Size	Lighting Technologies 260,000 M^2
Project Location	Beijing
Project Contact Name	Dengxing Liu
Title	Sales
Email	dengxing.liu@ge.com
Phone	13311214326

Project 3

Client Name	Jiali Construction-Jiali Plaza
Technology and Project Size	Lighting Technologies 120,000 M^2
Project Location	Shenzhen
Project Contact Name	Wang Mengjia
Title	Key Account Manager
Email	emmy.wang@ge.com
Phone	13823725092

COMPANY CERTIFICATIONS

Certifications that the company has obtained and/or meets in China and globally	1.ISO9001:2008 2.ISO14001:2004 GB/T 24001-2004 ISO9001:2008 GB/T 19001-2008

FINANCING

Available Financing Methods(direct purchase, energy savings performance contact, shared savings model, etc)	direct purchase, energy savings performance contact, shared savings model

Project Financing Partner 1

Project Location	Suzhou
Customer	Suzhou HuaruiPlastic electronics Co., LTD
Technology and Project Size	Servo hydraulic power energy saving system, 18 large injection molding energy saving machine
Project Financing Amount	Over RMB 2,000,000
Financing Type	The energy-saving benefit sharing/self-raised funds
Project Contact Name	Gao Shihong
Project Contact Email	18913542829@126.com
Project Contact Phone	18913542829
Project Company Name	Suzhou Shengshi Energy Management CO., LTD
Financing Company Name	Suzhou Shengshi Energy Management CO., LTD
Financing Contact Name	Gao Shihong
Financing Contact Email	18913542829@126.com
Financing Contact Phone	18913542829

Project Financing Partner 2

Project Location	Suzhou
Customer	Yijia（Suzhou） Co., LTD
Technology and Project Size	GE Starcoat T5、GE PRO LED
Project Financing Amount	Over RMB 2,000,000
Financing Type	Quarterly re-construction/self-raised funds
Project Contact Name	Gao Shihong
Project Contact Email	18913542829@126.com
Project Contact Phone	18913542829
Project Company Name	Suzhou Shengshi Energy Management CO., LTD
Financing Company Name	Suzhou Shengshi Energy Management CO., LTD
Financing Contact Name	Gao Shihong
Financing Contact Email	18913542829@126.com
Financing Contact Phone	18913542829

Section II Proposed Product and Service Descriptions

2.1 Technologies included: Lighting Technologies

2.2 The Best Successful Cases of GE Lighting

GE Oil & Gas KARIWA Factory, JAPAN

GE Oil & Gas

LED T10

70% Energy-Saving
1.8 Simple
Payback year

Situation:

- The objective of this project is to install LED 8 feet T10 products to the main factory of GE Oil & Gas Japan to obtain energy-saving keeping the original brightness. This project leads the cross-business project opportunities between Oil & Gas and Lighting.

GE Lighting Solution:

- We installed our LED products for the customer which could help save as much as 70% energy.

Operating Impact

~ $78,600 energy savings per year

~ 1.8 year simple project payback

Environmental Impact

654,885 lbs per yr CO_2 emissions eliminated

= 57 cars off the road OR

= 81 acres of new trees

Arvind Mills

55% Energy-Saving
2.2 Simple
Payback year

LED T8

Situation:

- Arvind Mills is a textile manufactures in India, and was known as the third largest denim manufacturer, looking for a solution which reduces maintenance costs, minimize energy consumption, handle their recycling needs and also improve the overall appearance. Since, there were large open spaces in the building, the lighting had to be designed in such a way that adequate illumination exists for the employees to safely move across the aisles and perform their duties efficiently.

GE Lighting Solution:

- Arvind Mills turned to GE's Lighting business to shine more efficiently their 60,000 million square feet of work space. GE examined and assessed the facility and suggested replacement of FTL battens with LED T8 tubes. These T8 tubes have an approximate life of 40,000 hrs.

Operating Impact

~55% energy savings per year

~2.5 year simple project payback

~Low glare and more uniform lighting

Environmental Impact

546 tons per yr CO_2 emissions eliminated

= 104 cars off the road OR

= 156 acres of new trees

Assumption College, PH

MR16

T8

122% Energy-Saving
0.88 Simple
Payback year

Situation:

- As a renowned school, Assumption College (formerly known as Assumption Convent) is located in prosperous Makati City, Philippines. Not only Assumption College, but practically all schools are geared towards LED because of high power rates and consciousness of environmental protection.

GE Lighting Solution:

- GE Lighting has offered a solution of convert their 40-watt fluorescent tube to 5,000 pcs of GE LED T8 18-watt Daylight, which have more trustworthy brand and extended warranty.
- Some auditorium lights were replaced from Dichroic 50-watt to GE 6-watt MR16.

Operating Impact

- ~ $170,000 energy savings per year
- ~ lower maintenance cost
- ~ 122% cost saving in energy

Environmental Impact

872,665 lbs per yr. CO_2 emissions eliminated
= 76 cars off the road OR
= 108.2 acres of new trees

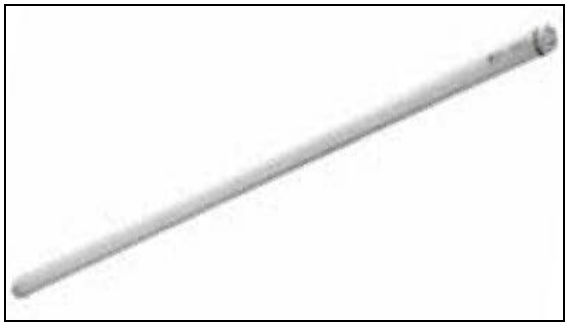
2.3 Product Technical Specifications

2.3.1 LED T8 Tube GEN II Premium

GE LED Tube Gen 2 Premium Range delivers super long life time with high efficiency. Meanwhile, by providing GE LED dummy igniter, it facilitates the retrofit job to conentional lighting and can replace fluorescent tube driven by magnetic ballast in a very easy way.

- Long lifetime as 50,000hrs
- High reliability to minimize maintenance cost
- High efficiency up to 97lm
- Easy to retrofit with GE LED dummy ignite
- Compliance with safety stand and protection circuit
- Evenly distributed light
- No UV, environment friendly

Application •Supermarket/Hypermarket •Indoor Parking Lot •Warehouse •Office



2.3.2 LED Bulb Dimmable

LED Semi-Omni dimmable bulb replaces the traditional incandescent lamps 40W/60W and complies with ENERGYSTAR's standard

Product Features
•Dimmable with leading/trailing edge dimmer
•210D Wide Beam Angle
•Complies with Energy Star standard
•Complies EU A energy level

2.3.3 MR16 Dimmable

Brand new LED MR16 Performance Leadership produces virtually the same light output of a 35W/50W halogen with leading LED technology. Standard IEC size makes it easy to retrofit.

Product Features

•High Lumen output with 520lm max, far above market average LED MR16 products

•Optional narrow beam optical design delivers super high CBCP as 3500cd max for spot lighting effec

•Both lumen output and CBCP virtually equivalent to 35W/50W

•High power factor above 0.9

•80% energy saving compared with halogen

•Long life time with high reliability, minimize maintenance cost •Standard IEC size and lamp base, compatible with halogen transformer

•Dimmable with trailing and leading edge dimmer

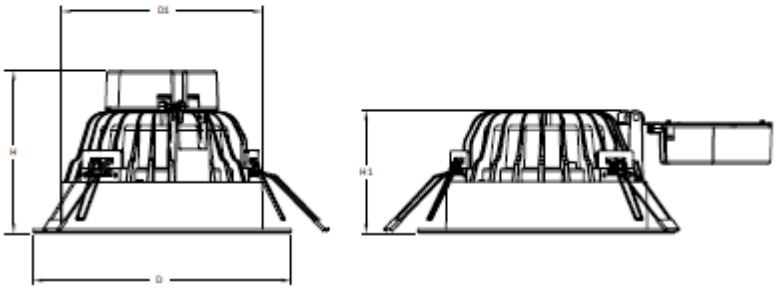
2.3.4 Downlight

GIt is the fist time that GE indoor lighting launches downlight. Its integrated fixture design can easily replace the traditional lamps. We promises providing better quality and higher lighting efficiency solutions for offices, shopping malls and hotels

Product Features High Lighting Efficiency
•Its color rendering index reaches 80, which can meet various indoor lighting demands
•Its excellent uniform diffuse and glae control can create comfortable lighting environment
•Designed with national standard for 2011
•Three color temperature options can suit various conditions Energy Efficiency
•Using 10W/15W/30W energy saving fixture replacing 18W/26W/2x26W CFL ones, compared with GE traditional lamps, 55% power saving and 20% luminance increasing
•Calculated with normal power consumption, it can almost save 100° electric energy
•Without ultraviolet and infrared
•Mercury - free discharge
Convenient For Installation And Maintenance
•Its 25,000 hours long life can decrease maintenance times And maintenance costs
•Foldable power supply solution makes low-ceiling installation easily, and it can also meet the need of low floor height building
•Button spring fixtures can assure the security of installation
Technical Specifications
•Long life: 25,000 hrs(L70)
•220-240V, 50-60Hz power supply

Dimensions

Unit: mm



2.3.5 Batten

Simple appearance and compact structure of GE LED batten & LED T8 bring customers new experience of soft LED lighting.

Product Features

•55% Energy saving compared with GE T8 fluorescent, 42%compared with GE T5 fluorescent
•Special optical design makes low glare and more uniform lighting effect
•No mercury, no ultraviolet and infrared radiation

Technical Specification

•Average life: 45,000 hours
•CCT: 4000K/5000K
•Power Factor: >0.9
•Color rendering index: 80

2.3.6 LED Backlit Troffer

The latest GE embedded LED flat fixture, to provide new general lighting scheme.
Product Features And Technical Specification
•Compared with fluorescent fixture, energy saving is more than 30% •Make ceiling more tidy and present vivid space
• Save amounts of lights
•High reliability, low maintenance cost

2.3.7 Professional T5 Highbay

Specification Features

- GE unique reflector design, efficiency up to 92%
- With more lamp options, for better light distribution and flexible design, optimize energy saving
- Work together with GE high efficiency T5 fluorescent lamps, for higher lumen maintenance and longer life
- Energy efficiency, saving up to 50% compared with traditional HID fixture
- Passes the 0.5g 3 dimension vibration test, making it more suitable for industrial environments
- 4 mounting method available: ceiling, single pole rigid pendant, double pole rigid pendant, flexible chain mounting method. Please order corresponding accessories separately
- Two material options available for reflector: Miro4, 320G
- 220~240V, 50/60Hz

Notes: Warranties will be provided based on the specific product.

2.4 Technology Design and Deployment Plan

2.4.1 Technology Design Solution

2.4.1.1 LED T8 Tube GEN II Premium

	Original Solution	GE Energy-saving solution	Original Solution	GE Energy-saving solution
Product	T8 fluorescent tube	LED T8 Tube GEN II Premium	T8 fluorescent tube	LED T8 Tube GEN II Premium
Power（W)	18	9	36	18
Cost savings calculation over the lifetime of the proposed technology solution	Lifetime of LED T8 Tube GEN II Premium: 50,000 hours Cost savings calculation over the lifetime: 450KW/H		Lifetime of LED T8 Tube GEN II Premium: 50,000 hours Cost savings calculation over the lifetime: 900KW/H	
Way of Replacement	1：1 Replacement		1：1 Replacement	

2.4.1.2 LED Bulb Dimmable

	Original Solution	GE Energy-saving solution	Original Solution	GE Energy-saving solution
Product	40W incandescent lamps	LED Bulb Dimmable	60W incandescent lamps	LED Bulb Dimmable
Power（W)	40	8	60	12
Cost savings calculation over the lifetime of the proposed technology solution	Lifetime of LED Bulb: 25,000 hours Cost savings calculation over the lifetime: 800 KW/H		Lifetime of LED Bulb: 25,000 hours Cost savings calculation over the lifetime:1200KW/H	
Way of Replacement	1：1 Replacement		1：1 Replacement	

2.4.1.3 LED MR16 Dimmable

	Original Solution	GE Energy-saving solution	Original Solution	GE Energy-saving solution
Product	35W halogen	LED MR16 Dimmable	50W halogen	LED MR16 Dimmable
Power（W)	35W	7	50	7
Cost savings calculation over the lifetime of the proposed technology solution	Lifetime of LED MR16: 25,000 hours Cost savings calculation over the lifetime: 700 KW/H		Lifetime of LED MR16: 25,000 hours Cost savings calculation over the lifetime: 1075KW/H	
Way of Replacement	1：1 Replacement		1：1 Replacement	

2.4.1.4 LED batten

	Original Solution	GE Energy-saving solution	Original Solution	GE Energy-saving solution
Product	18W fluorescent	LED batten	36W fluorescent	LED batten
Power（W)	18	9	36	18
Cost savings calculation over the lifetime of the proposed technology solution	Lifetime of LED batten: 50,000 hours Cost savings calculation over the lifetime: 450 KW/H		Lifetime of LED batten: 50,000 hours Cost savings calculation over the lifetime: 900KW/H	
Way of Replacement	1：1 Replacement		1：1 Replacement	

2.4.1.5 LED Downlight

	Original Solution	GE Energy-saving solution	Original Solution	GE Energy-saving solution
Product	18W fluorescent downlight	LED Downlight	26W fluorescent downlight	LED Downlight
Power（W)	18	10	26	15
Cost savings calculation over the lifetime of the proposed technology solution	Lifetime of LED downlight: 25,000 hours Cost savings calculation over the lifetime 200 KW/H		Lifetime of LED downlight: 25,000 hours Cost savings calculation over the lifetime 275KW/H	
Way of Replacement	1：1 Replacement		1：1 Replacement	

2.4.1.6 LED Backlit Troffer

	Original Solution	GE Energy-saving solution	Original Solution	GE Energy-saving solution
Product	318 LOV	LED Backlit Troffer	314 LOV	LED Backlit Troffer
Power（W)	54	36	42	36
Cost savings calculation over the lifetime of the proposed technology solution	Lifetime of LED Backlit Troffer: 25,000 hours Cost savings calculation over the lifetime: 450 KW/H		Lifetime of LED Backlit Troffer 25,000 hours Cost savings calculation over the lifetime: 150KW/H	
Way of Replacement	1：1 Replacement		1：1 Replacement	

2.4.1.7 T5 Highbay

	Original Solution	GE Energy-saving solution	Original Solution	GE Energy-saving solution
Product	250W Metal Halide Lamp	T5 Highbay	400W Metal Halide Lamp	T5 Highbay
Power（W)	250	4x28W	400	4X54W
Cost savings calculation over the lifetime of the proposed technology solution	Lifetime of T5 Highbay 36,000 hours Cost savings calculation over the lifetime : 4968 KW/H		Lifetime of T5 Highbay 36,000 hours Cost savings calculation over the lifetime : 6624KW/H	
Way of Replacement	1：1 Replacement		1：1 Replacement	

2.4.2 Deployment Plan

The overall project execution will be deployed by EMC qualified companies. EMC company will appoint senior project manager to execute contact and ensure smooth product delivery. GE will appoint sales manager for each project to help EMC company on project execution. Project technology manager from GE will provide technical support during the whole project execution process. Service people from GE will also help project manager to provide pre-sales and after-sales service for each project.

2.5 The National and Jiangsu "12th Five-Year" Plan for Energy Saving and Emission Reduction

From the national level, the 12th five-year plan specially emphasizes the importance of optimizing the industry structure, getting rid of the outdated production facilities, uplifting the market access requirement on energy saving, environment protection, earth and security of the large-scale public buildings, commercial buildings and residential buildings, putting a strict standard on the investigation of the energy saving and emission reduction of the fixed asset, the environment impact evaluation and the construction land use pretrial, and improving the linkage mechanism of new projects management and the accountability for project examination and approval. According to the 12th five-year plan, compared with 2010, the energy consumption per building area in 2015 will decrease by 21%, and the implementation rate of the energy consumption standard of the newly-built green building in towns will decrease by 15%.

On building energy saving, the 12th five-year plan puts a strict requirement on the building design, emphasizes the construction drawing examination and requires the town construction design to have a 100% reach to the energy-saving standard. The construction supervision and inspection should also be emphasized. The energy saving standard implementation rate during the construction stage should be over 95%. The project acceptance should strictly inspect the construction energy saving. Projects which fail to reach the energy saving standard cannot pass the final acceptance.

With the energy saving objective described in 12th five-year plan, it is clear to find that Jiangsu's energy saving objective during the 11th five-year plan was to decrease the energy saving per GDP by 20%, which was flat with the average level and most provinces in China. However, as the regional energy saving objective in 12th five-year plan, Jiangsu is listed as the Class 1 area, which is 2% higher than the national average level. During the 12th five-year plan, Jiangsu is still on rapid urbanization. Urbanization in 2015 is expected to reach to 63%, 2.4% higher compared with the end of the 11th five-year plan.

The constant increase of the urbanization level undoubtedly increases the energy consumption.

In construction area, Jiangsu is implementing a strict building energy saving standard. The implementation of energy saving standard on new buildings should be supervised during the entire process. The overall implementation rate should reach to 50%, and the planned and step-by-step implementation should reach to 65% design standard. Since 2013, residential building should reach to the compulsory standard of 65%. In 2015, Over 50% newly built public construction should reach to 65%. Jiangsu actively develops green building. Each year, 4 to 5 energy-saving and green building demonstration areas will be built, to promote the building energy consumption evaluation identification and the green building star identification, which initially shapes an identification system in building energy-saving and green building demonstration area, reflecting the reality in Jiangsu. Jiangsu also boosts the building energy-saving transformation. Energy-saving transformation in heating, air conditioning, ventilation and lighting should be put into force in the large-scale public buildings. The transformation encourages electricity sub-metering system.

——Green Lighting. Green lighting requires conducting the “China Gradually Getting Rid of Incandescent Roadmap”, weeding out the general and low-efficient lighting products like incandescent. Green lighting pushes the incandescent manufacturers to transform, supporting them to have a low mercury or mercury technical transformation. Green lighting also actively develops semiconductor lighting energy-saving industry, speeds the research and development of the key facilities, material and generic technology in semiconductor lighting, and also encourages the mature semiconductor general lighting to be used in hospitality, shopping mall, roadway, tunnel, and airport etc. Besides, Green lighting promotes to build standard inspection platform, with efforts to speed the city roadway lighting system transformation, and to control over-decoration and over-lighting. The 12th five-year plan can save 21 million tons of standard coal.

——Energy-saving products and people-benefit projects. It requires further promotion on the efficient energy-saving products. Civilian area mainly promotes the efficient lighting

products, energy-saving household appliances, energy-saving and new-energy automobile etc. The commercial area mainly promotes the unitary air conditioner etc.

Sheet1 Key Energy Saving Indexes during“12th Five-Year”

Index	Unit	2010	2015	Range/Variation
Building				
The existing residential building transformation area in the northern heating area	million m^2	180	580	400
The standard implementation rate of the newly built green building in towns.	%	1	15	14
Public institution				
Energy consumption per building area of the public institution	Kg ce/m^2	23.9	21	[-12%]
Energy consumption per capital of the public institution	Kg ce/person	447.4	380	[15%]

Notes: [ ] refers to variation.

Sheet2 Outdated Production Facilities during “12th Five-Year”

Industry	Content	Unit	Capacity
Incandescent	$60w^+$ general lighting incandescent	Million	600

Section III Proposed Financing Methods

- **Name of financing provider**
  Suzhou Shengshi Energy Management CO., LTD

  Relationship to vendor
  Authorized Distributor of GE Lighting Co., Ltd

  Contract terms and duration

  Lighting contract lasts no more than three years in common. If the energy saving effect is qualified, benefit sharing contract will be adopted and payment can be paid by month according to agreed percentage. If the cost recovery period is too long, energy-saving benefit payment, energy-saving amount guarantee payment or installment payment will be conducted, according to the specific circumstances.

  Range of financing amounts available based on project size

  According to the size of the project and cost recovery time, several ways of financing are listed as below: self- raised fund; financing from bank; financing raised by a professional project management investor or specific financing guaranteed by energy-saving industry association.

  Repayment methods and schedules

  The most important factor of benefit sharing project are the lighting ignition time and electric unit price, ways of repayment should be linked to energy-saving amount, generally no more than three years.

- **Ideal customer profile(s) for financing**
-

  If the project contract amount is large with good energy saving amount, Suzhou Shengshi Energy Management CO., LTD could package it directly to the bank and repay directly into the designated account by month. Or package directly to a third party professional energy saving investment institutions. In addition, energy-saving industry association can guarantee Suzhou Shengshi Energy Management CO., LTD for special financing guarantee, the premise is that Suzhou Shengshi Energy Management CO., LTD has evaluated customer`s credit.

- **Sample financing contract**

-
- Suzhou Shengshi Energy Management CO., LTD had co-operated with Everbright Bank, however, because customer convey retrofit to different time segments, they had enough finance support to finish the project, so Suzhou Shengshi Energy Management CO., LTD did not ask for bank financing. Suzhou Shengshi Energy Management CO., LTD mortgaged the contract to the bank, evaluate customer`s credit at the same time, then conducted credit rating to the product supplier, the bank provided all the money to customer at one time, then the customer monthly repaid to the designated bank account.

Section IV Cost Proposal and Representative Savings

4.1 Summary of Project Opportunities

	Business DistrictA (WIZ)	Business DistrictB (GDL)
Solar PV	9 building customers are interested in installing a total of 8 mw roof and sheds Solar PV □	We are looking for the supplier of complete sets of commercial solar power systems to generate electricity. □
Lighting	10 building customers have about 777,000 m^2 Building area can replace existing incandescent and fluorescent lamps with LEDs upgrades. □	We are looking for suppliers that can make full use of natural light and have the largest amplitude to reduce artificial lighting energy consumption's with advanced lighting□
Building Energy Management Systems	45 buildings in 10 different places are interested □	We are looking for suppliers that sale advanced energy management system (hardware and software) such as heating, cooling, and lighting systems □
Electric Vehicle Charging Infrastructure	11 districts are interested in installing 60 electric vehicle station. □	We are looking for suppliers that sale simple, high efficient and low cost advanced electric vehicle charging equipment and service. □
Building Envelope		We are looking for suppliers have advanced peripheral related technologies for buildings which can provide the basis of the shell and the kernel energy-saving of buildings. □
Heating and Cooling Systems		We are looking for heating and cooling system suppliers that can efficiently keep room temperature and air quality. □
Solar Water Heating Systems		We are looking for suppliers that can make use of the solar energy hot water system for building and regional scale indoor hot water. □

Energy Storage		We are looking for suppliers whose sale cover the integration of renewable energy, and electricity network control, electric cars and have the demand of side management into a whole set of energy storage systems□
Sustainable		We are looking for suppliers that focus on sustainable design and construct effect buildings. □

4.2 Cost Proposal Forms

Business District: [ ] WIZ [ ]
GDL

2-Cost Proposal Form: Lighting					
#	**# Product/Service Technology**	**(B) Unit Description**	**(C) Direct Purchase Cost Per Unit**	**(D) Financing Available**	**(E) Expected Energy Offset**
1	LED Lighting	T8 Lighting Tube	RMB 140-200	Shared Savings for retrofits	77.8% savings over T8 Fluorescent
2	LED Lighting	A19 LAMP	RMB 120-170	Shared Savings for retrofits	85% savings over T8 Fluorescent
3	LED Lighting	MR16 Dimmable	RMB 135-150	Shared Savings for retrofits	80% energy saving compared with halogen
4	LED Lighting	Downlight	RMB 275-360	Shared Savings for retrofits	Using 10W/15W/30W energy saving fixtue replacing 18W/26W/2x26W CFL ones, compared with GE traditional lamps, 55% power saving and 20% luminance increasing
5	LED Lighting	Batten	RMB 232-445	Shared Savings for retrofits	55% Energy saving compared with GE T8 fluoescent, 42%compared with GE T5 fluoescent
6	LED Lighting	LED Backlit Troffer	RMB 760	Shared Savings for retrofits	Compared with fuorescent fxture, energy saving is more than 30%

7	T5 HIGHBAY	T5 HIGHBAY	RMB 1160-1250	Shared Savings for retrofits	Energy efficiency, saving up to 50% compared with traditional HID fixture
8					

Explanation of Pricing and Financing Options:

Contract terms and duration

Lighting contract lasts no more than three years in common. If the energy saving effect is qualified, benefit sharing contract will be adopted and payment can be paid by month according to agreed percentage. If the cost recovery period is too long, energy-saving benefit payment, energy-saving amount guarantee payment or installment payment will be conducted, according to the specific circumstances.

Range of financing amounts available based on project size

According to the size of the project and cost recovery time, several ways of financing are listed as below: self- raised fund; financing from bank; financing raised by a professional project management investor or specific financing guaranteed by energy-saving industry association.

Repayment methods and schedules

The most important factor of benefit sharing project are the lighting ignition time and electric unit price, ways of repayment should be linked to energy-saving amount, generally no more than three years.

- **Ideal customer profile(s) for financing**
-

If the project contract amount is large with good energy saving amount, Suzhou Shengshi Energy Management CO., LTD could package it directly to the bank and repay directly into the designated account by month. Or package directly to a third party professional energy saving investment institutions. In addition, energy-saving industry association can guarantee Suzhou Shengshi Energy Management CO., LTD for special financing guarantee, the premise is that Suzhou Shengshi Energy Management CO., LTD has evaluated customer`s credit.

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-
- Suzhou Shengshi Energy Management CO., LTD had co-operated with Everbright Bank, however, because customer convey retrofit to different time segments,

they had enough finance support to finish the project, so Suzhou Shengshi Energy Management CO., LTD did not ask for bank financing. Suzhou Shengshi Energy Management CO., LTD mortgaged the contract to the bank, evaluate customer`s credit at the same time, then conducted credit rating to the product supplier, the bank provided all the money to customer at one time, then the customer monthly repaid to the designated bank account.

Notes: EMC company will provide all necessary details of specific examples or estimates of the equipment costs, fees, labor rates and service charges for all equipment purchases, installations and support services. Cost savings calculation over the lifetime of the proposed technology solution, please refer to 2.4.1.