

China-Italy Chamber of Commerce

Energy and Environment Protection Working Group



Camera di Commercio Italiana in Cina
中国意大利商会
China-Italy Chamber of Commerce



ABOUT US



The **China-Italy Chamber of Commerce (CICC)** is a business organization that aims to boost the internationalization and settlement of Italian business and to promote the “Made in Italy” in the PRC. The CICC is one of the six Implementing Partner of the EU SME Centre.

The CICC offers informative, training and business networking opportunities to the companies as well as consultancy, assistance and marketing services.



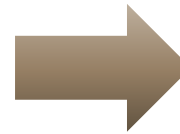
The **Energy and Environment Protection Working Group (EEPWG)** is an initiative supported by the Embassy of Italy and Italian Chamber of Commerce in China. EEPWG aims at representing the active coordination structure of the “Pacchetto Energia/Ambiente”, developed by Embassy of Italy since 2014 and subject of many inter-governmental agreements along the past years.

EEPWG represents the Italian companies, members of CCIC and with interests in China, operating within Energy and Environment Protection industrial sectors along the relative value chains (upstream, downstream, fossil energy, renewable energy, distribution, consume, emission/water/waste/soil treatment, energy saving, etc.).

MATTM (Italian Ministry for Environment protection) will participate to EEPWG as an observer.



EEPWG's COVERED INDUSTRY SECTORS



- Emissions treatment 排放处理
- Water Treatment 水处理
- Renewable energy 可再生能源
- Soil remediation 土壤修复
- Energy saving 节能
- Waste to energy 废弃物回收
- Waste management 废物管理
- Sustainable transportation 可持续交通
- Energy production/distribution 能源生产 / 分销
- Heating/District Heating 供热/区域供热



EEPWG OBJECTIVES

- **Promote** Italian industrial and service excellences within the Energy/Environment Protection sectors towards institutions, entities, associations, media in China;
- Become the **CICC operative interface** for Chinese counterparts (public and private) within the Energy/Environment protection sectors;
- Interpret the operative execution entity of the **“Pacchetto Energia/Ambiente”** promoting towards Embassy amendments, updates, integrations and due changes according to the markets and legislation evolutions and priorities in perspective;
- Promote and coordinate **events, fairs and exhibitions** in China;
- Foster and communicate towards Italy (entities, institutions, media, etc.) **business opportunities in China** within the Energy/Environment protection sectors for the advantage of Italian companies not yet operating in China beyond the stimulus to Institutions for possible coordinated “system” actions;
- Sustain and promote proactive actions for **setting up and developing “pilot projects”** aimed at integrating Italian Companies for their joint cooperation within the identified pilots projects.



EEPWG ACTIVITIES

- March 28th 2018 – Inauguration of the Center for the promotion of bilateral investments between Italy and Chongqing Liangjiang New Area.
- May 3rd-5th 2018 - IE EXPO Shanghai, the largest environmental fair in China, at Shanghai New International Expo Centre (SNIEC).
- May 10th-12th 2018 - NGVS China 2018, the 19th International NGVS and Gas Station Equipment Exhibition.
- June 7th-9th 2018 - CIEPEC 2018, the 16th China International Environmental Protection Exhibition.
- September 20th -24th – Chengdu Western China International Fair.





ITALIAN PERFORMANCES

Italy is the ideal candidate to partner China in sorting out environmental challenges over the next decades: Italian performances in energy efficiency and environmental protection are a benchmark in the world.

意大利是中国在未来数十年面对环境问题挑战的理想合作伙伴。意大利在能源效率和环境保护方面的表现是世界标杆。

Italy's performances within Energy and Environmental Protection Management are a blend of advanced technologies, services, management practices and overall Governments and people attentiveness that, all together, have lead Italy to achieve extraordinary performances.

依据不仅仅是意大利受到公认的传统杰出元素如美景，质量和技术，同时也主要源于意大利人所继承的严苛的使命来保存和保持意大利国家作为世界上最美丽的国家。





ENERGY INTENSITY OF GDP

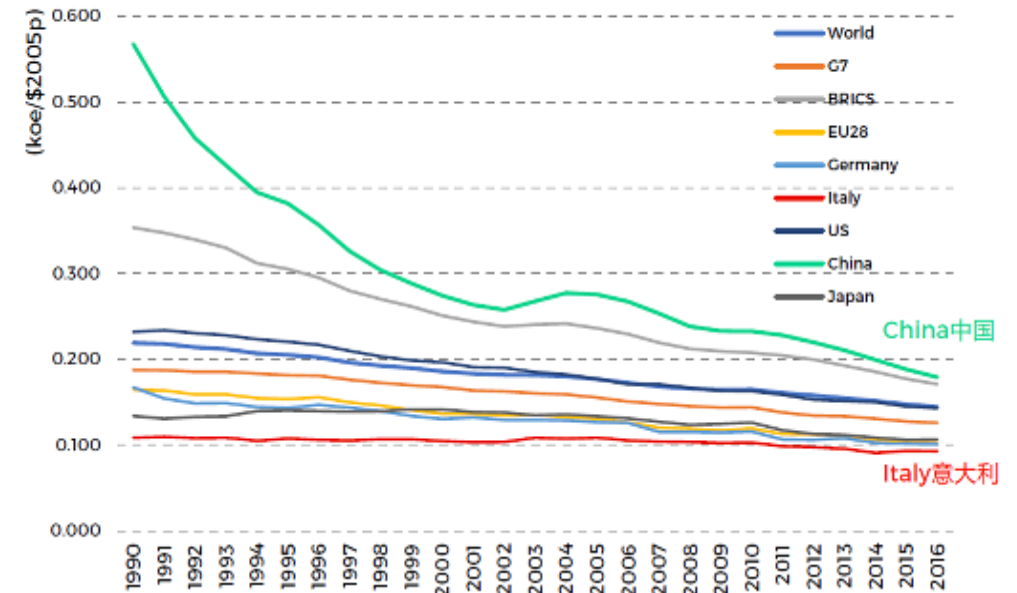
Italy has the lowest Energy Intensity (unit of energy to generate one point of GDP) among the biggest industrial economies.

在世界各大经济体中，意大利具有最佳的能源效率。

If China were to achieve the same energy intensity of Italy, it could save more than 50% of its primary energy sources (around 1.700 Mtoes, or 300 bn USD).

如中国实现和意大利同样的能源强度，可节省50%的主要能源（约为1690百万吨油当量或3000亿美元）。

Energy Intensity of GDP at Constant Purchasing Power Parities
根据购买力平价折算的 GDP 能源强度



Source: EEPWG brochure
资源: EEPWG brochure



CO2 INTENSITY

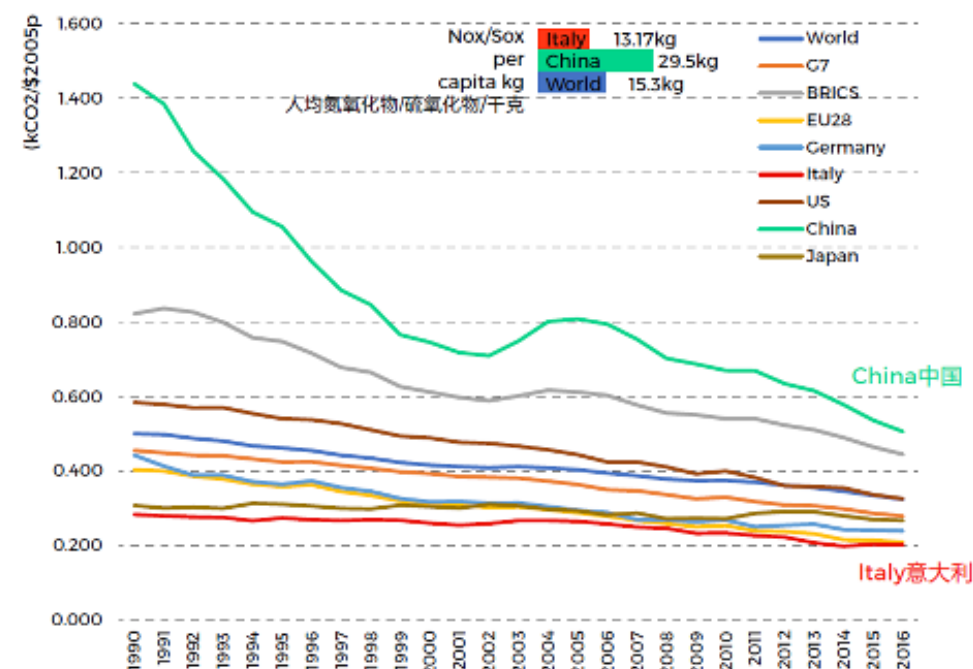
Italy has the lowest CO2 intensity (unit of CO2 emissions to generate one point of GDP) among the biggest industrial economies.

在世界各大经济体中，意大利具有最低的单位GDP的二氧化碳排放强度。

If China were to achieve the same CO2 intensity of Italy, it could save more than 65% of CO2 emissions, cutting about 6.450 Mio tonnes of CO2 per year, about 18% of worldwide CO2 emissions.

如果中国实现和意大利相同的二氧化碳排放强度，则可以减少 65%的二氧化碳排放，每年减少排放二氧化碳6.45亿吨，约为二氧化碳世界范围排放总量的18%

CO2 Intensity at Constant Purchasing Power Parities
根据购买力平价折算的二氧化碳排放强度



Source: EEPWG brochure
来源: EEPWG brochure



OVERVIEW ON GDP IN EU

Italy has the highest investment rate on GDP for Environmental Protection among EU28 Countries.

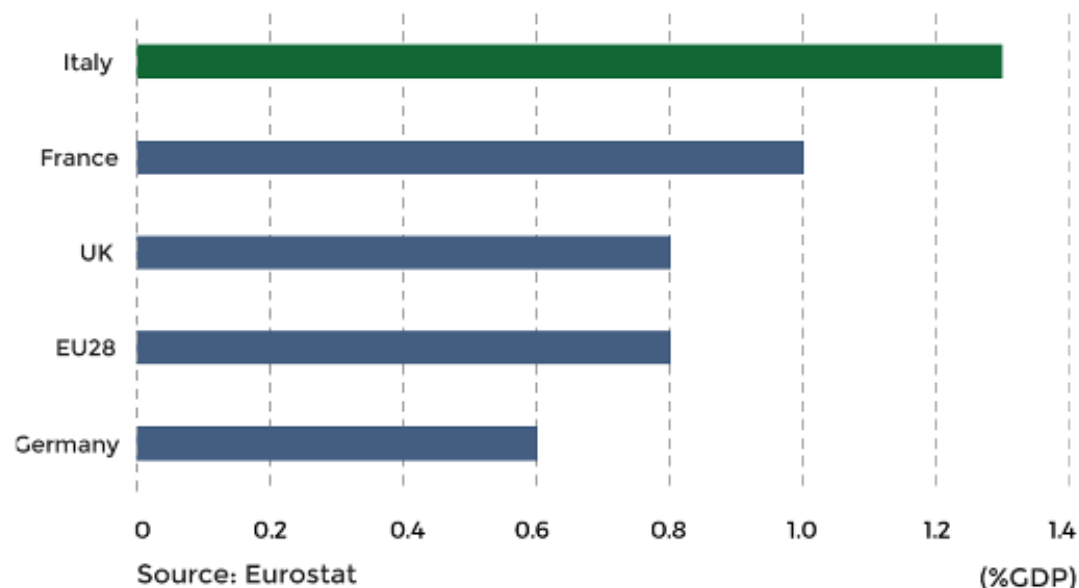
在欧盟28个国家中，意大利对环境保护的投资占国内生产总值中的比例最高。

EP is a key priority of Italian Government and its People. Investing in protecting the environment is a cultural mandate for Italy.

环境保护是意大利政府和人民的重要优先事项。环境保护投资是意大利的一项强制性文化使命。

Government/Public Environmental Protection Expenditure/ GDP in EU28 (2015)

欧盟 28 国的政府 / 环境保护支出 / 国内生产总值 (2015)



Source: EEPWG brochure
来源: EEPWG brochure



SHARES OF RENEWABLE PRIMARY ENERGY SOURCES

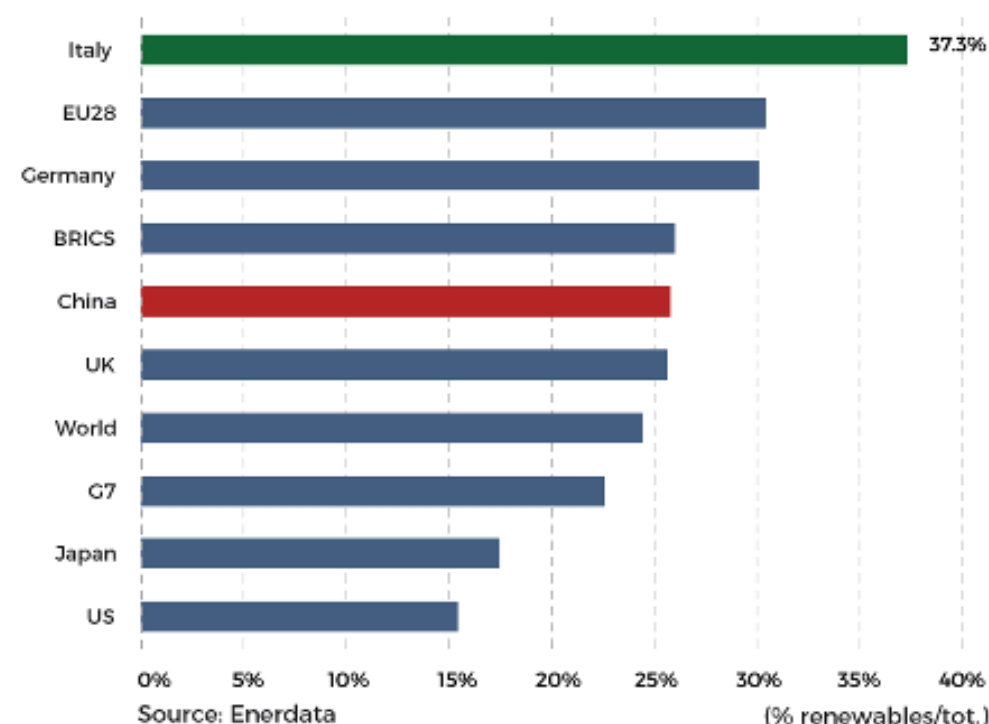
Italy has the highest shares of renewable primary energy sources among the biggest economies.

在世界各大经济体中，意大利拥有的可再生初级能源比重最高。

Italy's advanced technologies in Hydropower, Geothermal, Wind, Solar PV, and Biomass let the country exploit at best all available renewable energy sources, thus achieving its Kyoto goals 5 years in advance and now progressing fast in accomplishing COP21's.

水电，地热，风能，太阳能光伏，生物质能等可再生能源，意大利凭借先进的技术最大程度的利用了所有的可再生能源。因此，意大利已提前5年实现“京都议定书”规定的目标，并正快速推进实现“巴黎协定”规定的各项目标。

Share of Renewables in Tot. Electricity Production (2016)
可再生能源占全部电力产量 (2016)



Source: EEPWG brochure
来源: EEPWG brochure



INDUSTRIAL WASTE PER GPD

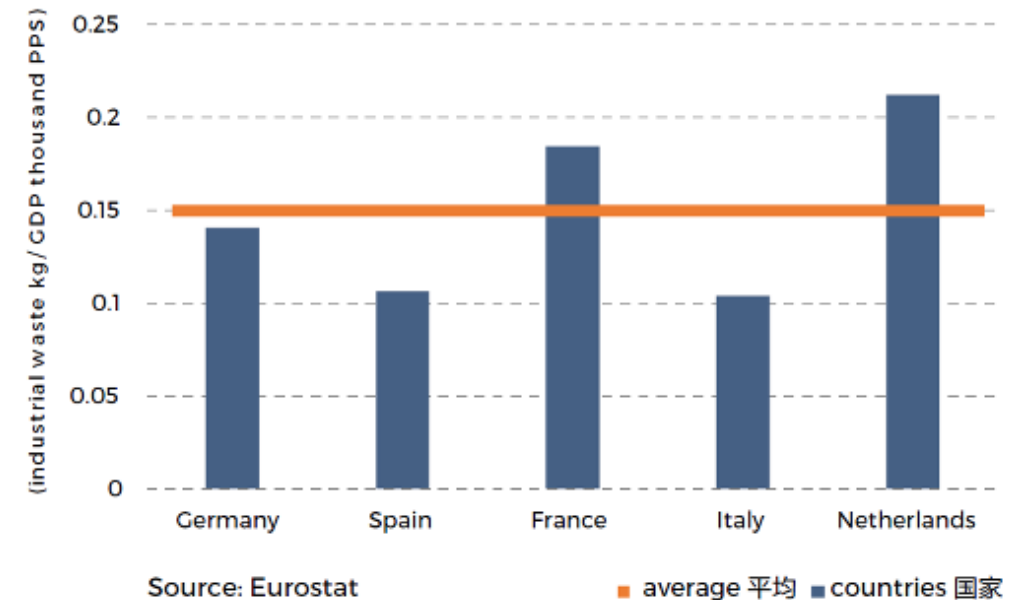
In EU28, Italy is the Country with the lowest industrial waste intensity (unit of industrial waste to generate one point of GDP).

在欧盟28个国家中，意大利的工业废物排放强度最低。

Although Italy is a manufacturing and industrial power (7th in the world, 2nd in Europe), manufacturing value chains are strictly controlled and managed to minimize waste production and maximize recycling.

尽管意大利是制造和工业大国（世界排名第七，欧洲排名第二），制造业产业链受到严格的管理和监管，从而最小化废物的产生和最大化回收再利用。

industrial Waste per GDP (2015)
单位 GDP 的工业废弃物 (2015)



Source: EEPWG brochure
来源: EEPWG brochure



INDUSTRIAL WASTE GENERATION PER CAPITA

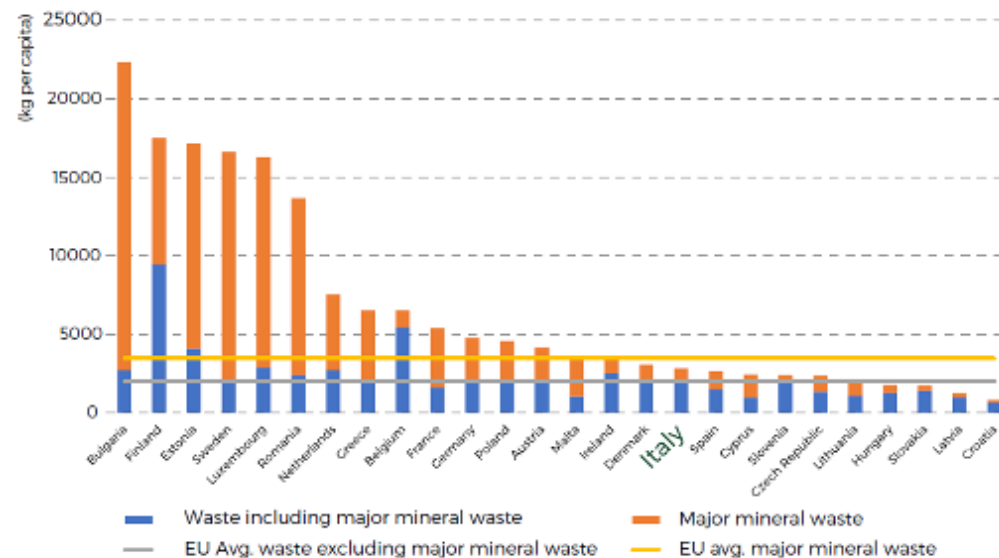
Among EU28 Countries, Italy boasts one of the lowest levels of industrial and civil waste production per capita.

在欧盟28个国家中，意大利是人均产出工业和生活用废物最少的国家。

Italy's level of both industrial and civil waste generation per capita is kept very low thanks to the overall people and companies' awareness and strict compliance with the policies adopted.

得益于意大利对于欧盟废物管理标准的严格承诺，意大利人均工业和生活废物产出率一直保持在很低的水平。

Industrial Waste Generation per capita(2015)
人均工业废物产量 (2015)



Source: Eurostat

Source: EEPWG brochure
来源: EEPWG brochure



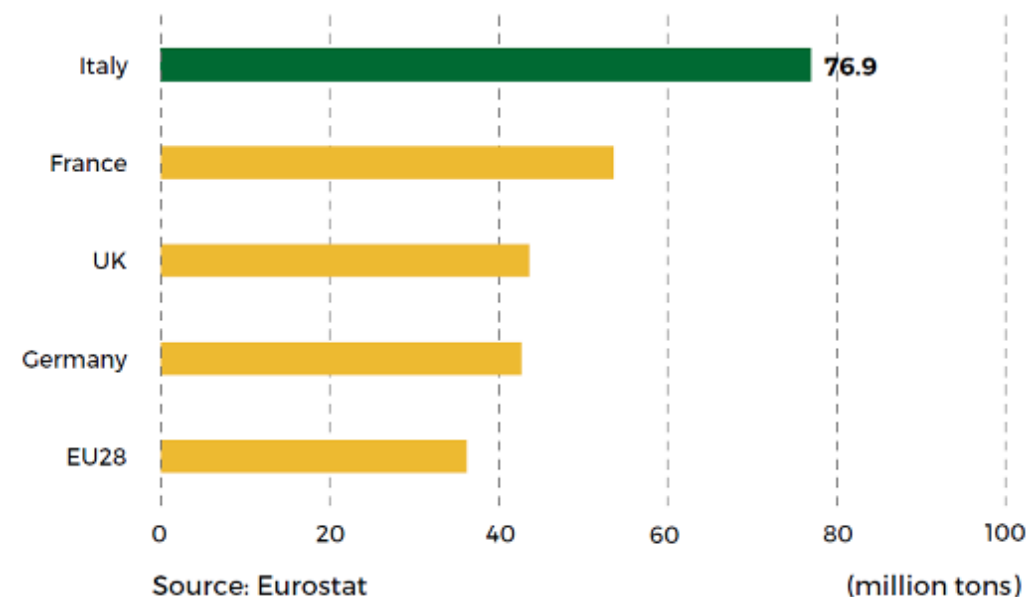
WASTE RECYCLING RATE IN EU

In EU28 Italy is the Country with the highest waste recycling rate.
在欧盟28个国家中，意大利的废物回收率最高。

In Italy both household and industrial wastes recycling is a priority to contribute to circular economy practices and increasing energy efficiency.

在意大利，生活垃圾和工业废物的回收被视为促进循环经济实践和增加能源效率的优先事项。

Waste Treated Sent to Recycling in EU28 (2014)
欧盟 28 国废物回收量 (2014)



Source: EEPWG brochure
来源: EEPWG brochure



CHINA'S 2016/2017 POWER GENERATION MIX

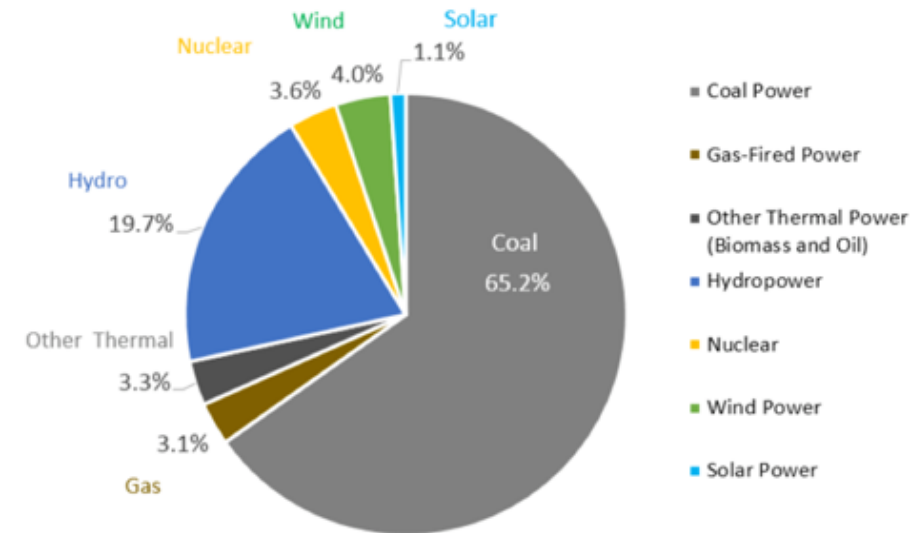
In 2017 China tot. energy consumption reached 4.49 billion tons of standard coal (+2.9%).

- Coal consumption + 0.4%,
- Crude oil +5.2%,
- Natural gas +14.8%.
- Electricity consumption grew by +6.6%.
- Coal stands for the 60.4% of tot. energy consumption (-1.6%)
- Natural gas, hydropower, nuclear power and wind power stand for 20.8% of tot. energy consumption, (+1.3%)

2017年能源消费总量44.9亿吨标准煤，比上年增长2.9%。

- 煤炭消费量增长0.4%，
- 原油消费量增长5.2%，
- 天然气消费量增长14.8%，
- 电力消费量增长6.6%。
- 煤炭消费量占能源消费总量的60.4%，比上年下降1.6个百分点；
- 天然气、水电、核电、风电等清洁能源消费量占能源消费总量的20.8%，上升1.3个百分点。

China's 2016 Power Generation Mix



Source: EEPWG brochure
来源: EEPWG brochure



CHINA'S 2016/2017 POWER GENERATION MIX

Coal still represents the major energy source in China although natural gas, renewable and nuclear are growing faster.

煤炭仍属中国大陆主要能源，尽管有天然气、快速发展的再生能源以及核能等。

China still consumes 35% of its energy resources to cover its energy demand VS the 28% of Italy.

中国为满足需求需消耗约35%的能源资源，而意大利只需要28%。



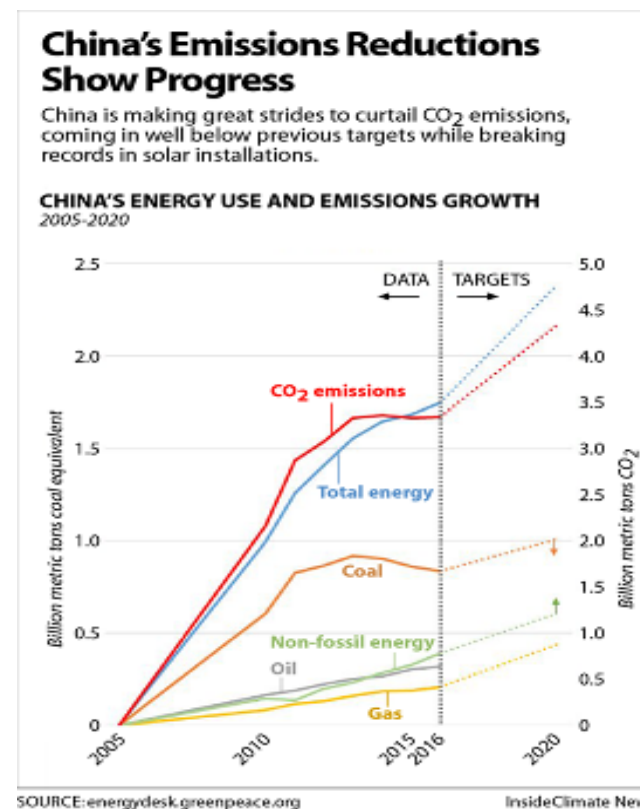
Source: EEPWG brochure
来源: EEPWG brochure



CHINA'S 2016/2017 POWER GENERATION MIX

Energy consumption and CO₂ emissions in China are improving but still have a critical environmental impact.

中国能源消耗与二氧化碳排放量虽然变得好点，还是给环境带来了巨大影响。



Source: IEA, Energydesk Greenpeace
T. 3: IEA, Energydesk Greenpeace



Evaluation of China investments on environmental protection and energy saving technologies (billion USD)

	2014	Aggregated investments 2015至2017 投资总额
Waste water treatment 水处理	55-60	230-250
Waste treatment 固体废物处理	32-36	170-200
Mud treatment 污泥处理	5-6	30-40
Emissions management 排放处理	6-7	32-38
Renewable Sources 可再生能源	245-260	700-800
Air Treatment 空气治理	33-36	250-280
Soil Remediation 土壤改良	0,05	0,25

Source: IEA, Energydesk Greenpeace
来源: IEA, Energydesk Greenpeace



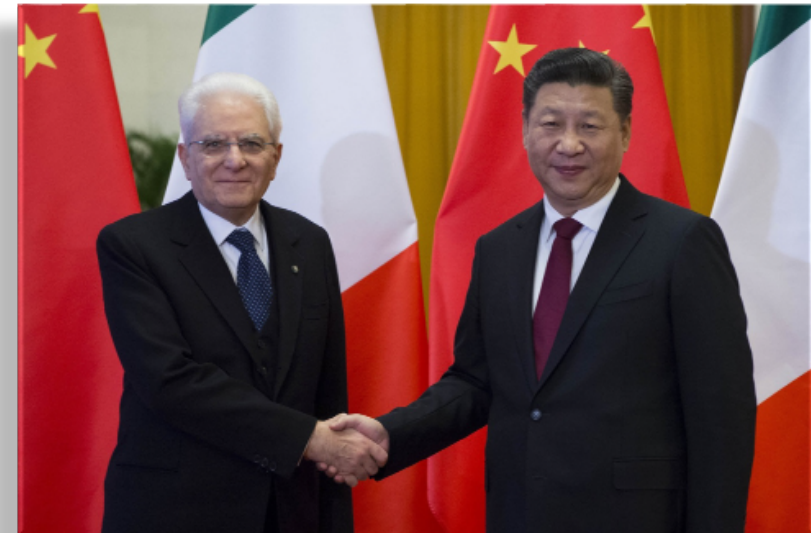
ITALY-CHINA COOPERATION RELATIONSHIP ON ENVIRONMENTAL PROTECTION

Italy and China have a long and successful cooperation relationship within Energy and Environmental Protection Management.

意大利和中国在能源和环境保护管理领域方面拥有长期和成功的合作关系。

Collaboration in the environment and sustainable energy fields has been confirmed as a mutual priority in the "Plan of Action for Italy-China Cooperation 2017-2020" that was signed by the Prime Ministers of both Countries in May 2017.

2017年5月由两国总理共同签署的'中国和意大利关于加强经贸、文化和科技合作的行动计划（2017年-2020年）'也将可持续能源与环境领域的合作确定为双方相互优先开展的领域之一。





ITALY: the ideal partner to cooperate with in Energy/Environmental Protection sector

The most severe regulations on
environmental protection

在环保方面最严苛和其限制性的法律

Among the world most advanced
technologies and facilities in
Energy/Environment sectors

在所有能源和环境领域意大利的技
术在世界处于领先的地位

The most severe regulations on
environmental protection

在环保方面最严苛和其限制性的法律

Italy key assets in
Environmental
protection

意大利
在环保领域的
优点

High public awareness on environmental
facts

在所有环境问题上的高度社会敏感性

Mix of international enterprises and
SMEs that can provide a wide range of
utilities and technologies

大型跨国公司和中小企业作为具备灵活
性和可适应技术的供应商

High environmental
awareness in all industrial
fields

所有工业领域对环境的高
度敏感性



CHINA: 13th FYP's Green Targets (2016-2020)

Clean vehicles 清洁能源车	<ul style="list-style-type: none">- Production capacity for fully electric vehicles and plug-in hybrid electric vehicles to reach 2 million yearly by 2020, with accumulated production and sales of over 5 million.	<ul style="list-style-type: none">- 到 2020 年, 全电动车和插电式混合动力电动汽车的年生产能力达到 200 万辆, 累计生产和销售 500 多万辆。
Cleaner conventional energy 常规清洁能源	<ul style="list-style-type: none">- 15% of energy mix to be non-fossil.- Add around 350GW-400GW of additional clean energy (total capacity: hydro 340 GW; pump storage 40 GW; wind 250 GW; solar 160 GW; nuclear 58 GW), with investment amounting to RMB 2.3 trillion (€310 billion).	<ul style="list-style-type: none">- 非化石能源消耗比重达到 15%- 增加其它清洁能源 350 吉瓦-400 吉瓦 (总量为: 水电 340 吉瓦; 抽水蓄能 40 吉瓦; 风电 250 吉瓦; 太阳能 160 吉瓦; 核电 58 吉瓦), 累计投资 2.3 万亿元人民币 (约为 310 亿欧元)。
Coal 煤炭	<ul style="list-style-type: none">- Coal power consumption to fall by 2-4% per year.- Cut 20% of coal production, and close 4,300 coalmines within three years and relocate one million workers. Allocate RMB 30 billion (€4.1 billion) to support the transition.	<ul style="list-style-type: none">- 每年减少 2-4% 的煤炭消耗量- 削减煤炭产量 20%, 三年内关闭 4300 个煤矿, 安置 100 万名工人. 拨款 30 亿元用于支持该转型变革。

Source: E3G, Bloomberg Brief
来源 彭博社



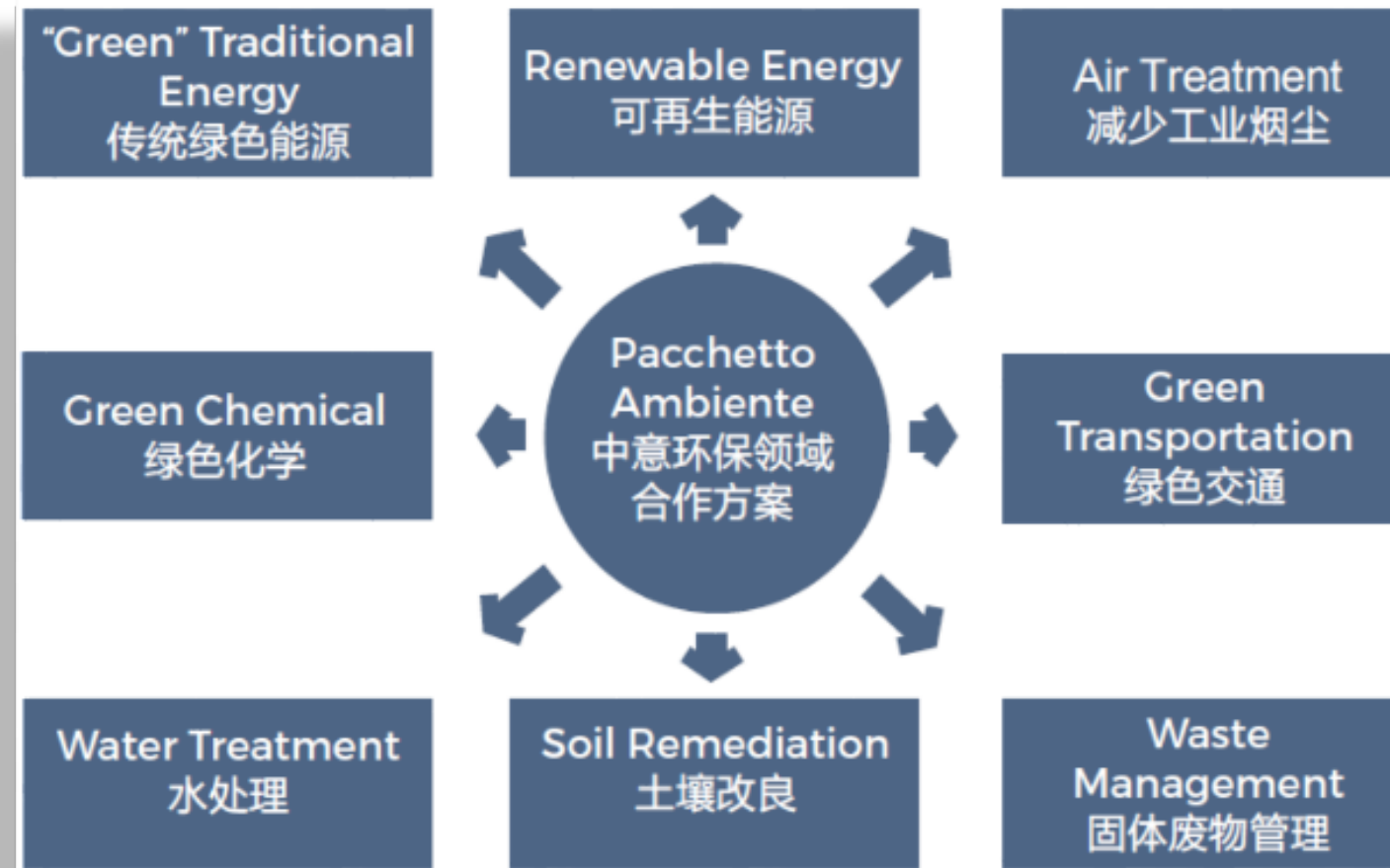
CHINA: 13th FYP's Green Targets (2016-2020)

Energy Efficiency 能源效率	<ul style="list-style-type: none"> - Reduce energy intensity by 15%. - Investment in energy saving and environmental protection industry to reach RMB 17 trillion (€2.28 trillion) by 2020, whereas market for ESCO to reach RMB 600 billion (€80.4 billion). 	<ul style="list-style-type: none"> - 将能源强度降低 15%。 - 到 2020 年, 节能和环保方面的投资达到 17 万亿元人民币(约为 2.28 万亿欧元), 而节能服务市场投资达到 600 万亿元人民币 (约为 80.4 亿欧元)。
Gas emissions 气体排放	<ul style="list-style-type: none"> - Reduce CO2 intensity by 18%. - Surpass the goal to cut carbon emissions in a unit of GDP 40-45% on 2005 levels by cutting its carbon intensity by 50% by the end of the decade. 	<ul style="list-style-type: none"> - 将二氧化碳排放强度降低 18% - 到 2020 年, 通过将碳排放强度降低 50%, 从而实现单位国内生产总值碳排放比 2005 年下降 40-45%的目标
Grids 电网	<ul style="list-style-type: none"> - Investments on grids amounting to around RMB 2.4 trillion (€330 billion), RMB 1.7 trillion (€240 billion) of which on distribution network. Original allocation for smart grids is RMB 175 billion (€23.5 billion). - Increase the total length of the high-voltage distribution lines to 1.01 million km, more than double the 2014 level, whereas the medium-voltage distribution network is poised to grow to 4.04 million km. 	<ul style="list-style-type: none"> - 电网建设投资累计达到约 2.4 万亿元人民币 (约为€ 330 亿欧元), 其中 1.7 万亿元人民币用于配电网建设(约为 240 亿欧元)。智能电网建设投资为 175 亿元人民币(约为 23.5 亿欧元)。 - 将高压配电网线路总长度增加到 101 万公里, 是 2014 年的两倍以上, 同时中压配电网线路有望增加到 404 万公里。

Source: E3G, Bloomberg Brief
来源 彭博社



"PACCHETTO AMBIENTE" PROPOSES COOPERATION OPPORTUNITIES IN CHINA



Source: E3G, Bloomberg Brief
来源: E3G, 彭博简报

CICC Conctats



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Thank you

谢谢



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