



ADB's Financing on Waste to Energy

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ADB

ADB's Approach on Solid Waste Management

- Sector Approach:
 - Integrated solution including recycling, landfill, composting and waste to energy;
 - Composting and Incineration
- Financing approach
 - Several technical assistance on capacity building and technical approaches
 - Waste to energy financing on PPP and PSOD

Sample of ADB Waste to Energy (W-T-E) Project

- ADB PSOD financed Everbright W-T-E projects;
- Incineration plants using BOT model,
 - Changzhou city with capacity of 800 ton/day
 - Suzhou city with capacity of 3,550 ton/day
- Electricity generation
- Everbright own technology of incineration

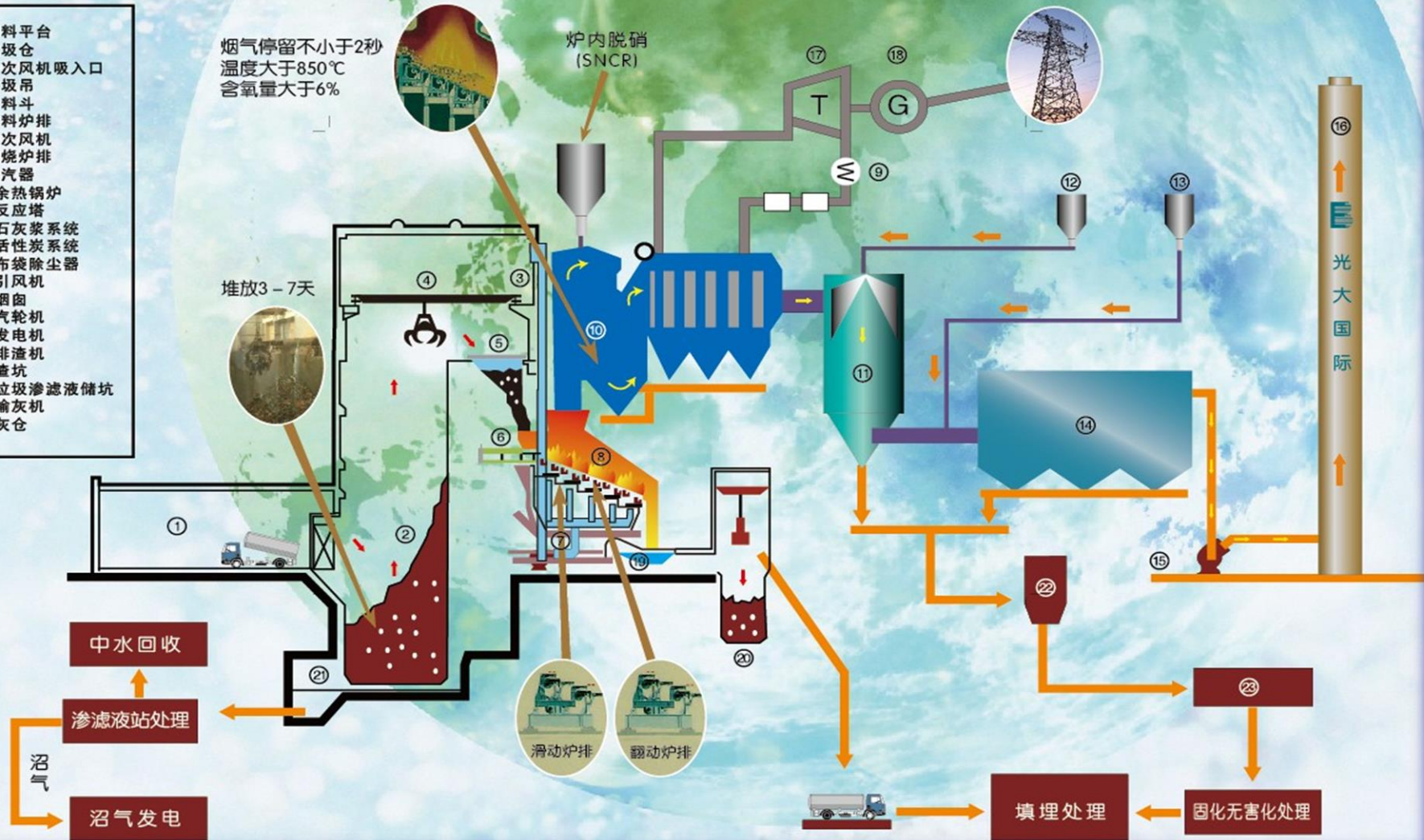
垃圾焚烧发电流程图

- 1、卸料平台
- 2、垃圾仓
- 3、一次风机吸入口
- 4、垃圾吊
- 5、给料斗
- 6、给料炉排
- 7、一次风机
- 8、燃烧炉排
- 9、凝汽器
- 10、余热锅炉
- 11、反应塔
- 12、石灰浆系统
- 13、活性炭系统
- 14、布袋除尘器
- 15、引风机
- 16、烟囱
- 17、汽轮机
- 18、发电机
- 19、排渣机
- 20、渣坑
- 21、垃圾渗滤液储坑
- 22、输灰机
- 23、灰仓

烟气停留不小于2秒
温度大于850℃
含氧量大于6%

炉内脱硝
(SNCR)

堆放3-7天



光大国际

Operation performance

- Significant reduction of waste volume, and
- Generated renewable energy
- Proper treatment of
 1. Flue Gas Treatment
 2. Leachate Treatment
 3. Solid residues
 4. Fly ash



ADB Waste to Energy (W-T-E) Project

2014年5月7日

星期三

天气：多云转晴

安全天数：486

项 目	单 位	A 值	B 值	C 值	D 值	日 累 计	月 累 计
垃圾进厂量	T	552.52	553.61	/	551.43	1657.56	14566.14
垃圾焚烧量	T	480.60	481.60	/	481.0	1448.30	13237.70
垃圾发电量	MWh	218.00	219.80	/	219.00	656.80	6064.00
焚烧上网电量	MWh	189.30	190.10	/	190.40	569.80	5250.30
沼气上网电量	MWh	/	/	/	/	/	/
热水销售量	T	/	/	/	/	/	/
除盐水量	T	21	20	/	23	64	772
原水取水量	T	/	/	/	/	/	/
柴 油	T	0.00	0.00	/	0.00	0.00	0.00
焚烧厂用电率	%	11.77	11.23	/	11.36	11.46	11.62
补水率	%	2.00	1.73	/	2.05	1.91	2.49
吨垃圾发电量	KWh/T	453.60	456.40	/	455.21	453.50	458.09
吨垃圾上网电量	KWh/T	393.88	394.73	/	395.76	393.43	396.62
DUST(80/10)	mg/m ³	3.64	4.27	/	3.11	3.67	3.45
HCL(75/10)	mg/m ³	2.97	3.13	/	3.97	3.36	3.90
SO ₂ (260/50)	mg/m ³	20.44	20.62	/	18.94	20.00	20.34
NOx(400/200)	mg/m ³	135.08	134.61	/	134.60	134.76	134.14

2 机运行, 沼气 3 机运行。

PPP based sustainability

- Government's policy to provide financial incentive for electricity generated through renewable energy (\$0.11/KWH vs \$0.07/KWH)
- Adapted incineration technology
- Tipping fee at \$10-\$15/ton by municipal government, and
- the restrict control of emission standard and operation environment by the local government and the operators.

Conclusion

- Big potential for more projects
- Sharing good practice
- Importance of the enabling environment

Thank You!
Q&A