

“Cogeneration-based District Heating Program” Workshop
co-organised by the Shanxi Province District Heating Association & the French
Development Agency (AFD)
Jinzhong City - Friday, 14 May 2010

1) Program outline

The French Development Agency (AFD) is the French bilateral development aid operator. In China, its mission is to bring financial support to low-carbon development projects (representing around 150 M€ loans per year) and to promote Sino-French partnerships around these projects.

In order to promote sustainable urban development and given the French expertise in that field, AFD believes district heating networks using cogeneration plants as a heat source are a key solution to low-carbon urban development.

AFD is thus considering financing a district heating program in Shanxi Province, which is divided into two projects located respectively in Taiyuan City and Jinzhong City.

2) Projects features

Both projects consist in the construction of a district heating network (including pipelines and substations) and in additional technical assistance (including demand-side management).

Taiyuan project

Taiyuan heating company already supplies heat to an area of 50 million sq. m.. The project to be financed by AFD will cover an additional 10,6 million sq. m. surface with heat generated by Ruiguang cogeneration power plant.

The power plant which provides heating to the network is located 100 meter above the area to be heated. A pressure isolation sub-station will thus ensure the connection between two loops of a total of 24 km, which form the project primary network.

Installed thermal capacity	Annual heating load	Length	Nb. of s/stations	Heated surface	Cost	AFD loan
680 MW	5500 TJ	40 km	75	10,6 M sq. m	106 M€	40 M€

Jinzhong project

This 10 million sq. m. district heating project is the first phase of the construction of a larger network. The heating company intends to use the best technologies available, as for example:

- skids for every substation (pre-built structure including pumps, water speed frequency control, meters, valves, heat exchangers...),
- direct burying without compensation for pipelines (pre-insulated steel), even of large diameter (1200 for the primary network).

Installed thermal capacity	Annual heating load	Length	Nb. of s/stations	Heated surface	Cost	AFD loan
700 MW	5262 TJ	43 km	67	10,2 M sq. m	63 M€	28 M€

3) Workshop organisation

With a view to promoting Sino-French partnerships around this program and more generally in the sector of district heating in Shanxi Province, **the Shanxi Province District Heating Association and AFD will jointly organise a one-day workshop in Jinzhong City on Friday, 14 May 2010.**

In addition to the heating companies of Taiyuan and Jinzhong, this workshop will gather on one side several other municipal district heating companies of Shanxi Province and on the other side French companies interested in district heating.

During this workshop, the heating companies of Taiyuan and Jinzhong will first describe the two projects and their main technical specifications. Each of the French firms will then be invited to present their activity and their products. The afternoon will finally be dedicated to free discussions between participants and possibly an on-field visit.

城市集中供热项目法企推介会

联合主办单位：山西省供热协会、法国开发署

时间地点：晋中市 2010年5月14日

1) 会议背景

法国开发署是法国官方对外援助的执行机构，其在华业务主要集中于节能减排领域，旨在为低碳发展项目提供资金支持（大约每年 1.5 亿欧元贷款），同时推动建立中法两国在该领域的各类合作。

为支持中国城市可持续发展并推广法国在该领域的经验，法国开发署决定在中国开展城市供热项目，主要是利用热电联产进行市政集中供热以推动低碳城市发展。

法国开发署目前正考虑为山西省的两个集中供热项目提供资金支持，它们分别位于太原市和晋中市。

2) 项目情况介绍

两个项目都旨在新建或扩建市政集中供热管网（包括管网和换热站），并提供可能的技术援助（包括需求侧管理）。

太原项目

太原供热公司目前已实现累计供热面积近 6 千万平方米。由法国开发署资金支持的项目将覆盖 1060 万平米新区域，热源为瑞光热电厂。

由于热源厂与城市热网之间存在 100 米的海拔差，因此该项目中将设置一座隔压站将电厂出来的高温热水与进入城区的热力管网隔离开，故该项目将采用三级换热的形式。连接电厂与隔压站的一级网长 10 公里。

总装机容量	年供热量	管网长度	换热站数	供热面积	项目总额	AFD 投资
680 兆瓦	5500 太焦	40 公里	75 个	1060 万平米	1.06 亿€	4 千万€

晋中项目

该项目总供热面积为 1 千万平方米，是晋中市全面实行市政集中供热改革的一期项目。新成立的晋中市供热公司致力于将该项目打造成全国一流水平，选用的都是国内目前最先进的技术设备，比如：

- 机组换热站(所有设备事先组装好，包括泵、水速调节器、计量仪、阀门、换热器等)
- 管网铺设采用无补偿直埋技术（预制保温钢管），包括大管径管网（如一级网 DN1200）

总装机容量	年供热量	管网长度	换热站数	供热面积	项目总额	AFD 投资
700 兆瓦	5262 太焦	43 公里	67 个	1020 万平米	6300 万€	2800 万€

3) 会议安排

为推动该项目框架内实现更多的中法合作，也为山西省供热行业更好地了解法国企业设备和技术，山西省供热协会和法国开发署将于 2010 年 5 月 14 日在晋中市共同举办为期一天的法企推介会。

除太原和晋中两市的供热公司外，该会议还将汇集山西省其他市级供热公司及法国相关企业代表。

日程安排方面，太原和晋中两家供热公司将首先介绍各自的项目及技术特点。随后，由各家法企介绍自己的业务及产品。下午主要以自由交流讨论和项目点参观为主。

