

Vantone社区将是北京第一个零碳社区项目。设计将从阳光中产生足够的能量,以满足年度总热量和电力的需求,但考虑到用电高峰期的负荷,仍旧将其与市政电网相连接。房屋具有良好的保温隔热和隔声效果,最大程度地引入自然光以减少采暖、制冷和人工照明消耗的能量。通过设置太阳能集热器,可提供整个夏季和11、12月份的家用所需的热水,其余的热水供应则在冬季由地源热泵提供。同时每户并不需要都连接上天然气,太阳能屋顶所产生的9.62 kW的峰值将创建一个舒适的冬季屋顶花园,为全年提供足够的电能,甚至有些家庭可以用此电能供应一辆小型的电动车。(朱晓琳/译)

The Vantone terrace is designed to be one of the first zero carbon housing projects in Beijing. It generates enough energy from sunlight to meet its overall annual heat and electric demands, although it is grid connected to meet peak loads. The homes are thermally massive, draught proofed and super insulated with good daylight – minimising heating, cooling and artificial lighting demand. Solar thermal collectors provide domestic hot water all summer and most of the mid seasons, leaving only modest hot water demands met by a ground source heat pump in winter. The homes do not require connection to the gas supply, although this could be made available for cooking if deemed important. The 9.62 kw peak himinzed solar roof creates a rooftop winter garden that will increase sales values, and generate enough electricity over the whole year to meet the homes requirements, and careful households can even have some spare to run a small electric car.



模拟实景效果图

街道透视效果图

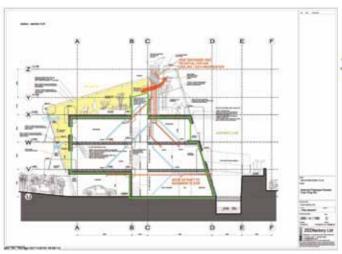


模拟街道实景效果图



模拟街道实景效果图





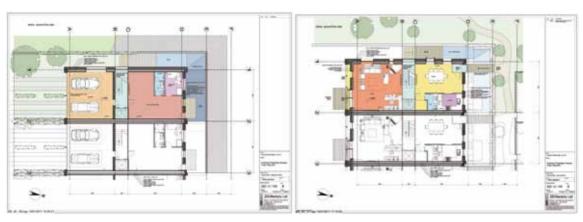
能源运作剖面图 能源战略示意图

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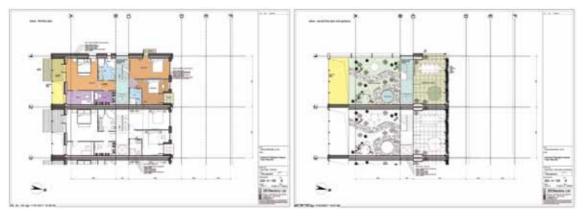
风帽

冬季室内花园效果图



首层平面图

二层平面图



三层平面图

四层平面图 (天顶花园)





单个街区平面图

可复制城市街区