


致有关部门：

我院对国内（省内）部分已投入运行的瓦斯机组调查表明，国产自主研发的瓦斯机组在实际运行中受气源、气候条件、地理位置及自然损耗等因素影响，其发电效率相对于设计值均偏低、以胜动集团生产的单机容量为 500kW 机组为例，在符合其设计参数（瓦斯浓度高于 30%）的条件下运行，每消耗  $1\text{m}^3$  甲烷，其实际发电量在 2.2 至 2.6kWh，此值略低于可行性研究及厂家的设计值（3.0 kWh）。并且，随着机组运行时间的增加，该值会进一步降低，该情况属国内机组的普遍情况。

特此说明

江西省煤矿设计院  
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# Translation

To whom it concerns:

Based on the survey conducted by Jiangxi Coal Mine Designing Institute on the operating coal mine methane gas engines in China (mainly in Jiangxi province), it is indicated that, the operation of home-made gas engines is affected by the gas sources, climate, geography and natural loss. The power generation efficiency is always lower than the designed value. Taken the gas engines with a capacity of 500kW made by Shengli Oilfield Shengli Power Machinery Co., Ltd. as example, 2.2 to 2.6 kWh power will be generated consuming  $1\text{m}^3$   $\text{CH}_4$  when the concentration of CMM is higher than 30%. This is lower than 3kWh which is designed by the manufacturer. Moreover, the actual power generation efficiency will even decrease with the long-time operation in the future. It is a common situation of the Chinese home-made gas engines.

Chopped by Jiangxi Coal Mine Designing Institute

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