Proposal for the Appropriate Natural Gas Utilizations in Developing Countries – Sudan as Case Study

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***Abstract*- The paper considers Natural Gas utilizations worldwide and the developments in its sectors, and the global consumptions with some suggestions and recommendations on how to exploit Natural Gas reserves developing countries and in Sudan as a case study. It is predicted that Natural Gas would be an important fuel for power generation and main raw material for a plethora of industries in the decades to come. Projections for year 2040 are that Natural Gas would consist of about 29% of the total energy consumed in the world, with corresponding 33% to oil. It is also suggested that the use of cogeneration plants in Sudan would benefit in power and space cooling generation stations that use Natural Gas in the near future. Petrochemical industry is also an important and crucial sector in which Natural Gas constitutes most of the raw material, and therefore it is highly recommended to be introduced in Sudan for domestic use and export. LNG and its re-gasification are also reviewed; the re-gasification capacity has been growing gradually since 2006 from 0.8% and has currently reached 8.8%. The design for a Natural Gas driven train engine is included in this report, to encourage using Natural Gas trains and Metros in the future.**

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