**IMPACTS OF THE OFFSHORE CAPE THREE POINTS (OCTP) INTEGRATED OIL AND GAS PROJECT; GHANA NEEDS CLEAN AND SUSTAINABLE ENERGY**

**Introduction**

In spite of Ghana’s commitment to the Paris Agreement, many governments in Africa including the government Ghana have teamed up with the fossil fuel industry to promote natural gas as a clean alternative energy. Friends of the Earth-Ghana believes that natural gas as an energy source is inconsistent with the Paris Agreement. It is possible to build a climate-safe, socially-owned, just and sustainable energy system that ensures the basic right to energy for everyone is fulfilled and respects the rights and different ways of life of communities around the world.

The fossil fuel industry continues to advertise natural gas, including LNG, as a “bridge fuel” or an intermediate stage in the transition to a renewable energy economy. But there are two major concerns with LNG. The first is that although its main component methane does not linger so long in the atmosphere as carbon dioxide, it is initially far more devastating to the climate because of how effectively it absorbs heat. When methane leaks into the atmosphere unburned, it is a greenhouse gas more than 84 times more potent than carbon dioxide over 20 years. Existing data shows that, along the full LNG life cycle, up to 5 percent of methane escapes unburned. This means LNG has a devastating impact on a country’s greenhouse gas emissions.

The second concern is that the transportation and cooling of exported LNG is hugely energy-intensive. In fact, a growing body of evidence shows that, taking into account the incidence of methane leakage and energy intensity LNG liquefaction, shipping and regasification, exported LNG as a power source is worse for the climate than coal.

Overall LNG has an enormous climate footprint due to methane leakage throughout its lifecycle, carbon dioxide emissions during combustion, and the significant amount of energy required to transport and freeze gas before it is exported. Relying on LNG to meet Ghana’s increasing electricity needs cannot be reconciled with the goal of keeping global warming well below 2°C, and to tend toward 1,5°C.

**The Offshore Cape Three Points (OCTP) is an Integrated Project and Coastal Fishing Communities in Ghana**

Ghana’s major energy pursuits in recent years are diametrically opposed to the energy ladder concept where the energy sources used by households tend to be cleaner, more efficient and more technologically advanced as income increases. Ghana seems to be climbing up a dirty energy ladder while the country should be pursuing sustainable development.

Ghana’s petroleum sector has experienced significant growth since 2003, particularly since the discovery of oil in commercial quantities in the Jubilee fields in 2007. Some of the major oil and gas activities are done by IOCs such as Tullow Ghana, Cosmos Energy, ENI, ExxonMobil and Hess Ghana Limited. Their sub-contractors include Schlumberger, Baker Hughes, Weatherford, Ocean Rig and Technip. Since Ghana’s first commercial oil lifting took place, over 4.7 million barrels of crude oil have been produced, at an average of 80,000 barrels per day. There are currently about 11 petroleum agreements between the Government of Ghana, GNPC and petroleum operators signifying the increased interest in Ghana’s oil industry. Government, through GNPC, now seeks to fully maximize the country’s prospects in the oil and gas sector.

In Ghana, one major source of natural gas is the offshore Cape Three Points (OCTP) block. The OCTP Project is located within the OCTP block in the Tano Basin, at water depths ranging from 600m to 1,000m, and approximately 60km off the coast of Ghana. The area covered by the fields is approximately 694km². Eni Ghana Exploration and Production (a subsidiary of the multilateral corporation Eni group, based in Italy) is the operator of the block and holds a majority stake of 47.22% in the same. Vitol Upstream Ghana (also a subsidiary of a Swiss-based multinational energy and commodity trading company) holds a 37.78% interest in the block, while state-owned Ghana National Petroleum Corporation holds a 15% interest, with an option to further increase its share by an additional 5%.

The OCTP block has reserves of about 40 billion m3 of non-associated gas. The OCTP project has a gas processing capacity of 5.93 million standard cubic metres per day, with a 63 km natural gas pipeline connecting it to the coast. Recently, there are new discoveries for instance in the Akoma - 1X within the OCTP block. These discoveries present more potential for gas production from the OCTP block.  In 2020, 98% of Ghana’s thermal power was generated by gas, more than 50% of which came from the OCTP project. It is evident that national gas resources in Ghana has become a priority both as an energy source and as a source of extra revenue for the government.

Yet, local fishing communities in the OCTP Project area have been complaining about increased fish pollution, confiscation of fishing equipment, increased environmental degradation, increased sanitation related diseases (Malaria, Diarrhea) since the OCTP Project started. Local fishing communities have no constructive platform to properly address these insecurities with government and oil companies. Therefore, the power imbalance between corporate actors and government agencies on the one hand, and coastal and fishing communities is preventing the voices of coastal and fishing communities from being heard in the OCTP enclaves of Ghana.

Aside these on-the-ground impacts on coastal communities, pursuing LNG to increase electricity production in Ghana is diametrically opposed to the country’s Nationally Determined Commitments (NDCs) under the Paris Agreement and to the ultimate aim of the Sustainable Energy For All (SE4ALL) initiative where fossil fuels, including natural gas, have no place. LNG undermines the objective of SE4ALL as it is not a clean sustainable renewable form of energy.

From a climate change perspective, LNG is even worse than coal as a source of energy. After ratifying the Paris agreement, governments that fail to give evidence of their commitment against climate change by ruling out extreme dirty energy or governments that are directly involved in the building of new extremely dirty energy infrastructure such as LNG regasification terminals expose themselves to the risk of being at the centre of civil society mobilization.

**Let’s Move Towards Cleaner And Sustainable Energy**

Friends of the Earth-Ghana demands that Ghana government promotes clean, renewable and sustainable energy to achieve energy access for all Ghanaians within the bounds of its climate change commitments. Ghana has ample opportunities for this. There are many options including wind, solar, mini and small hydro, and modern biomass that can be exploited for electricity production and supply in the country. According to the Department of Energy and Environmental Engineering of the University of Energy and Natural Resources (UENR) Ghana has approximately 413 km2 area with good-to-excellent wind resource that could support a little over 2,000 MW of wind power development.

Also, considering that Ghana receives 5 ̶8 hours of sunshine per day at 1 kW/m2, with expressed interest from private companies of over 2,000MW utility scale solar installation, the prospects for solar farms is very high. Solar energy is deemed the single energy resource that is continuously decreasing in price, increasing in utility and could effectively contribute to sustainable development if the right decisions are taken by government. Given these facts, it is difficult to understand why the Ghana government continues to seek energy sources that are unsustainable and dirty.

For rural electrification, Ghana should focus on community owned and controlled green mini-grids (GMGs). A mini-grid, is a set of small-scale electricity generators that supplies electricity to a small, localized group of customers and operates independently from the national transmission grid. They range in size from a few kilowatts (KW) up to 10 megawatts (MW). According to the International Energy Agency (IEA), electricity from green mini-grids will be the best solution for more than half of the rural population currently without access to power in Africa. GMGs powered by renewables (solar PV, hydro, wind, community led biomass) can guarantee Ghana the following:

1. Universal energy access at a level that respects everyone’s right to a dignified life,
2. Energy system that is 100% renewable, with climate resilient, locally-appropriate and low-impact energy technology,
3. People-centred renewable energy sources with meaningful participation from people and communities,
4. An end to subsidies and perverse incentives for dirty and harmful energy
5. An end to false solutions and a rejection of highly risky geo-engineering options.

Given that Ghana has a track record of around 50% clean energy sources with hydro, Ghana is currently in a perfect position to bring an end to dirty technologies and pursue clean energy sources. If Ghana makes solar, mini hydro and wind power a national priority, the country could attract significant support from the European Union (EU) which currently has a renewable energy target of 40% by 2030.

It is important to address methane and CO2 if Ghana wants to effectively avoid the damaging impact of climate change. If government supposedly shelved the coal power project apparently in recognition of Ghana’s commitment to the Paris Agreement, then government should equally consider shelving the Tema LNG Terminal as it will equally contradict the Paris agreement. Ghana must pursue progressive clean, renewable sustainable energy sources. Ghana government must commit to sustainable, renewable, clean sources of energy if the country is to fulfill its commitments to the Paris Agreement and contribute meaningfully to keeping global warming below 1.5 degrees C. This is the only way to ensure that the worst impacts of climate change for Ghana and the world are avoided.