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"EU @ 60" – Domestic Climate and Energy Possibilities for securing Europe's Energy Future

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By Michael Amoah Awuah

This year the European Union celebrates the 60th anniversary of the Treaty of Rome. However, if it does not curtail its dependence on foreign fossil fuels (i.e. oil and gas) the EU runs an increased risk of exacerbating its weakness. This invites us to reflect deeply on the Energy and Climate situation of Europe now, with its impact on Energy Security on the continent and the possible domestic efforts it can implement for the future.

The EU's insatiable thirst for foreign fossil fuels (oil and gas) is incredibly high and does not seem to be slowing down. This has led to a vulnerable energy security position. For every 100 litres of oil consumed about 90 litres is imported from Russia, Nigeria and other parts of Sub-Saharan Africa, the Middle East as well as North Africa. Domestic oil production over the decade has plummeted to less than 50 percentage points. If this trend continues the International Energy Agency predicts that by 2030 the EU will be importing close to 95% of its oil from foreign sources.[1]

With this foreign oil dependency, the EU expends roughly 271 billion Euros[2] to several unstable and authoritarian regimes around the world; more than the overall combined GDPs of Bulgaria, Hungary, Slovakia, and Slovenia.[3] Half of this amount goes to Russia, the Middle East and North Africa[4].

Foreign gas dependency in the EU accounts for about two-thirds of overall gas demand. Europe is well known to be a significant energy importer, but what is less known is that it is the world's number one importer of oil, even higher when compared to the quantities of natural gas imports.[5]

This bleak perspective effectively undermines the efforts by the European Commission and other EU institutions (such as the Parliament and Council) in the gains being chalked by European nations in 'greening' their respective economies into the next century. It also reveals that something must be done domestically to minimise this dependency and its far reaching consequences on energy and climate. The following summary offers possibilities of reducing dependence on foreign oil as I reflect on the climate and energy realities that could secure Europe's long term future.

A shift from a rapid, short term target policy to a more gradualist long term energy and climate strategy that enables and fosters home-grown approaches to significantly reduce dependency on foreign oil.

An understanding of past energy transitions affirms the long term nature and process of energy transitions development. In other words, energy transitions in general, and particularly in Europe have always been gradual.[6] However a cursory appraisal of energy strategies of European Institutions and nations such as Germany, France and the UK reveals unrealistic timelines (as short as 10, 20 or 30 years) and short-sightedness in terms of how long a roll–out of a decarbonisation process would actually take. In contrast, the progress of some specific energy transitions on the national level such as Denmark's wind-powered electricity generation going from 12% in year 2000 to 41% in 2014[7] and Iceland's[8] renewable energy (that is Hydro and Geo-thermal) production sector which accounts for about 100% of electricity and 85% of heating as at 2016[9], are exceptions. These short-sighted energy and climate policy targets are also propped up by an overly enthusiastic academia.[10] There seems to be more emphasis on the rapidity and short-termism of the energy transition process (which focuses on consequences of excessive anthropogenic global warming[11]) rather than an enduring and long-term energy transition that would cumulatively take care of the climate and secure Europe's energy future. A long term approach focusing on a century or even two centuries, would offer Europe's current leaders an opportunity to decide on realistic policies that are not knee-jerk, but which minimise the increasing energy security vulnerability and eventually help the EU wean itself off foreign oil dependency. Thereby strengthening its position as a credible missionary of a "green energy" transition around the world.

Development of Biofuels

Latest global forecasts published by governments, institutions and companies indicate that fossil fuels would supply 70% of primary energy needs by 2040.[12] Most of the oil imported will be used in the transportation sector. Thus, Europe must explore and develop viable alternative fuels at commercial quantities that could reduce its share of this forecast. A viable alternative is the development of biofuels. Across the Atlantic, Europe could learn a thing or two from the United States which is the world's largest producer of bio-ethanol and provides incentives for investments in alternative fuels. Alongside the development of shale oil and gas, the US has reduced its dependency on foreign oil by 25%, lowered carbon dioxide emissions and created domestic jobs. Brazil also presents a fascinating example, after the oil crises in the 1970's it decided to reduce its dependence on imported oil. Presently, Brazil is the second largest producer of bio-ethanol which has replaced a quarter of the gasoline used in the country and become a net exporter of energy.[13] As Anders Fogh Rasmussen indicates in his article in Project Syndicate, the arguments about biofuels in Europe are outdated and always linked to rising food costs, in contrast to the notion articulated by Jose Graziano Da Silva, the Director-General of the Food and Agriculture Organization of the United Nations, that biofuels can be an effective means to increase food security and if properly done could mean "more fuel, more food, and greater prosperity for all".[13]

From mantra to policy

Some experts have criticised the EU's 20/20/20[14] – a 20% reduction in greenhouse-gas emissions, a 20% share for renewables, and a 20% increase in energy efficiency, all by 2020 as more of a mantra than a policy.[15] Pragmatic realism is needed on the part of the EU in its climate and energy policy formulation in order to secure Europe's energy future. Incremental investments in research and development (R&D) of alternative and renewable energy technologies with a long sighted view in partnership with the private sector and local communities coupled with a high-impact energy governance architecture can lead to an effective deployment of these new technologies.

Finally, this is a unique milestone – 60 years of the EU's existence - considering the history of its founding. In order not to miss the boat on energy security, waste recycling, reduction of greenhouse gas emissions and production of jobs (especially in rural Europe), a gradual, realistic and long-term approach, an aggressive bio-fuel technology development and an effective investment in R&D of alternative and renewable energy technologies coupled with the appropriate energy governance structures must be in place. This would be a far-reaching legacy that the Europe of today could bequeath to the Europe of tomorrow when Europe celebrates "EU @ 150".

Michale Amoah Awuah *is a Research Fellow at the Center for European Integration Studies (ZEI) working on his doctoral project "Rationale for Energy Governance in West Africa: Potential and Obstacles"*

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3. See https://www.project-syndicate.org/commentary/biofuels-alternative-to-foreign-oil-by-anders-fogh-rasmussen-2016-01

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8. In 2008, a speech delivered to the Icelandic Althingi (i.e. Parliament) by then Foreign Minister, Mrs. Ingibjörg Sólrún Gísladóttir, confirmed Iceland's inclusion in the EU's first energy policy and subsequent engagement in this policy area ON EQUAL FOOTING LIKE ANY EU member state as a result of its membership of the European Economic Area. See : https://www.mfa.is/media/Raedur/Island_a_innri_markadi_Evropu_enska_JAN_08.pdf

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