A Regional Fuel Market for ECOWAS

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24 June 2017—Accra, Ghana
The Clean Energy Ministerial launched the Clean Energy Solutions Center as a major initiative in 2011. The Solutions Center:

- Helps developing governments design and adopt policies and programs and identify finance measures that support the deployment of clean energy technologies.

- Partners with 35+ international energy and finance organizations to provide a range of resources, from web-based information to webinars and trainings.

- Offers the Ask an Expert service, which connects governments with a global network of 50+ energy and finance experts for direct technical assistance to develop solutions to policy and finance barriers to clean energy.
Ask an Expert: Our Experts in Action

Benefits of the Ask an Expert Service

• **Quick** and **Easy** access to assistance.
• **No cost** for assistance and no commitment.
• **Objective** assistance from experts is **personalized** to help governments meet local clean energy goals.
• **High-quality** assistance includes:
  – Access to a **collaborative network** of over 50 vetted, international experts with authority on clean energy policies and financing.
  – Independent **review** of assistance to ensure quality.

Expert support available to developing countries

• Request can come from staff or officials at all levels of government – national, regional, local.
• Service also supports organizations working with governments.

To request assistance, go to cleanenergysolutions.org/expert

Delivered no-cost assistance for more than 250 requests from over 100 countries/regions.
What is a regional fuel market for ECOWAS?

• A single market for fossil fuel and biofuel
  – Creates significantly larger fuel demand, reducing fuel costs
    • Upstream, where it’s produced
    • Downstream, where it’s consumed
  – Facilitates cross-border trade
    • A truck of E10 blended fuel in Mali could be sold in Niger or Togo
    • Improved fuel availability
  – Achieved through common fuel standards
    • Fuel Quality Standards
    • Fuel Operability Standards
    • Sustainability Standards
Why a regional fuel market for ECOWAS?

- Reduced fuel costs
- Reduced regional transportation costs
- Reduced cost of doing business
- Reduced food production costs
- Reduced FOREX expenditure
- Reduced inflation
- Increased investment
- SME development
- Job creation
- Value-added markets for agriculture
Beyond road transport

- River transport
- Sea transport
- Pipelines
- Power generation
- On-grid
- Decentralised off-grid
The fuel situation in ECOWAS

• ECOWAS countries are price takers
  – IEA 2014 data shows:
    • Nigeria exports crude and imports petrol
    • Cote d’Ivoire imports crude and exports petrol and diesel
    • Niger exports crude surplus but imports petrol and diesel
    • Benin and Togo import petrol and diesel
    • Ghana and Senegal import petrol and diesel as well as crude for refining
In 2012…

ODA for SSA reached $15.6 billion…

…while fossil fuel imports for EAC, COMESA and SADC reached $16.7 billion
Increasing energy independence

- Mandatory 10% ethanol and biodiesel blending
  - Reduce Forex expenditure
  - Reduce exposure to fossil fuel prices
  - Stabilise local fuel markets and prices
  - Create demand for investment in biofuel production
  - Create demand for investment in fuel infrastructure
  - Create value-added markets for agriculture
  - Create jobs
  - SME development
But biofuels don’t work! Unless...

- Policy framework
- Economy of scale
- Regional demand
CREATING A REGIONAL FUEL MARKET

A how-to guide
Standards are key to regional integration

Access to wider variety of newer technologies
- Reduced noxious emissions
- Improved energy efficiency

Better, cleaner air
- Less pollutants
- Fewer deaths and illnesses
- Reduced greenhouse gas emissions

Better Quality Fuel

Sustainability Standards
Operational Standards
Fuel Quality Standards
Max Sulfur Limits in Gasoline, 2016
Ecuador and Russia required to implement 10 ppm by second half of 2016

Legend:
- 0-10 ppm
- 11-30 ppm
- 31-50 ppm
- 51-150 ppm
- 151-500 ppm
- 501-2500 ppm
- No information

Countries may apply lower limits for different grades, regions/cities, or based on average content. Detailed information on limits and regulations can be found at www.stratasadvisors.com.

Source: Stratas Advisors, May 2016
Max Sulfur Limits in Gasoline, 2016

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- No information

Proof regional standards are necessary!

Source: Stratas Advisors, May 2016
Max Sulfur Limits in Gasoline, 2020

Canada, China, Ecuador, India, Saudi Arabia, South Africa, Ukraine and the U.S. to implement 10 ppm by this time.

Stratas Advisors estimates 500+ppm fuel will be phased out in Africa by 2025, leaving 60% 10ppm and 40% 150ppm.
Max Sulfur Limits in On-Road Diesel, 2015

Belarus required 10 ppm by this time; China, EAC and Russia 50 ppm

Legend:
- 10-15 ppm
- 16-50 ppm
- 51-350 ppm
- 351-500 ppm
- 501-2,000 ppm
- 2,001-10,000 ppm
- No information

Countries may apply lower limits for different grades, regions/cities, or based on average content. Detailed information on limits and regulations can be found at www.stratasadvisors.com.

Source: Stratas Advisors, October 2015.
Current Emission Requirements for New Vehicles

Stringent requirements in place for top markets except China, India, Indonesia, Mexico and Saudi Arabia.

Legend:
- STRINGENT (Euro 5/6, U.S. Federal, Japanese standards)
- LESS STRINGENT (Pre-Euro, Euro 1/IV)
- Not regulated
- No information

Source: Stratas Advisors, 2016
Current Fuel Efficiency Requirements for Gasoline and Diesel Vehicles

Policies in place for top markets except Indonesia, Russia and Saudi Arabia

Legend:
- **Policy in place**
- **Policy in progress**
- **Voluntary**
- **Not regulated**
- **No information**

Source: Stratas Advisors, 2016
Standards to be developed

Fuel Quality Standards
- Petroleum
  - Produce petroleum standards to ensure compliance with:
  - Unleaded petrol (ie lower octane – sub 95 RON)
  - Premium petrol (ie higher octane – 95 RON and above)
  - Bioethanol - E10 blended petrol
  - Bioethanol - E85 blended petrol
- Diesel
  - Produce petroleum standards to ensure compliance with:
  - Mineral diesel
  - Premium diesel
  - Biodiesel - B5 blended diesel
  - Biodiesel - B20 blended diesel
  - Renewable diesel
- Gas
  - Produce gas standards to ensure compliance with:
  - Liquified Natural Gas (LNG)
  - Liquified Petroleum Gas (LPG)
  - Biogas

Operability standards
- Vehicle emission standards for cars and trucks (in time, possibly rail and marine):
  - To reduce noxious emissions, particulates and other air pollutants
  - To introduce better technology solutions such as Euro 2 or 3 as a minimum
- Fuel efficiency standards for cars and trucks:
  - To reduce carbon dioxide emissions and other greenhouse gases
  - To introduce better technology solutions into the region

Sustainability standards
- To ensure the economic, environmental and social impacts of fuels are not adversely affecting the region or the communities in which ECOWAS operates
Next steps

What’s next:

- Federal and local governments
- NGOs
- Potential feedstock growers
- Potential fuel suppliers
- End users

Standards

- Fuel quality standards
- Fuel sustainability standards
- Fuel operability standards

We can help!

Workshops

- Provide experts to run workshops for capacity building at regional and national level
- Travel & logistics to be supported by other donors

Standards

- Provide experts to develop standards in conjunction with regional and national bodies
- Scoping exercise required to determine costs

Policy

- Provide experts to support development of laws and regulations
- Provide guidance on support infrastructure
- Not able to provide funding for creation or operation of agencies or departments

Systems

- Legislation
- Regulation
- Administration
- Testing, auditing and compliance
- Ongoing consultative committee
MEDA ASE!

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