

Refining Petroleum through Net Zero Ambitions

Anibor O. Kragha
ARDA Executive Secretary

Africa Energy Week – Energy Dialogues
November 11th, 2021



African Refiners & Distributors Association

جمعية المكررين والمسوقين الأفارقة

Association des Raffineurs & des

Distributeurs Africains

The voice of african downstream oil

La voix de l'aval pétrolier africain

صوت مصب النفط الأفريقي

Table of Contents

1. Introduction to the ARA / ARDA
2. Case for Action
3. Considerations for Africa Downstream Energy Transition Plan
4. Africa Energy Transition – A Tale of Three Decades
5. Key Takeaways

Introduction to ARA / ARDA

- ARA = African Refiners and Distributors Association (www.afrra.org)
- Created in 2006; name changed in 2017 to reflect complete supply chain
- Acronym and logo changed from “ARA” to “ARDA” in October 2020
- **Role of the ARDA:**
 - Give unified voice to **African refiners** and independent **marketers, distributors** and **regulators**
 - Promote exchange of experience and best practices amongst all stakeholders
 - Champion efforts for investments across African Downstream supply chain
 - **Promote African Energy Security** – Maximize processing of African crude oil in African Refineries and transportation of cleaner fuels via integrated African Storage & Distribution infrastructure across the continent



2021 ARDA Virtual Work Group Workshop Series

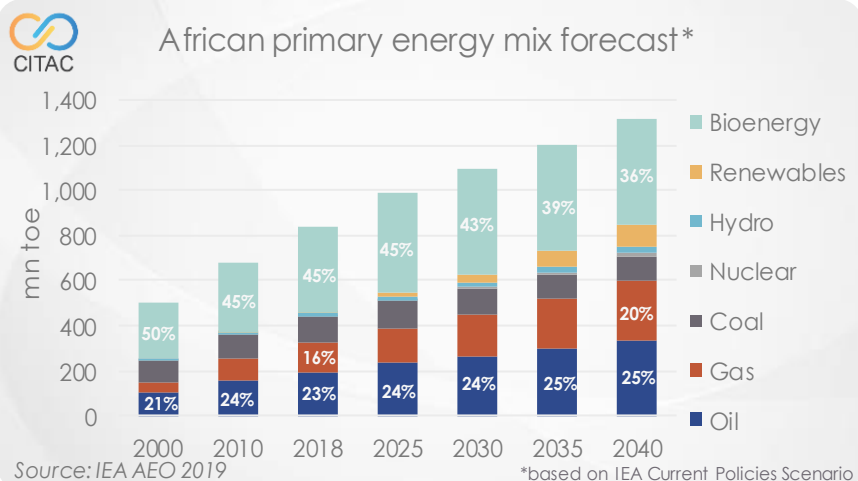
S/N	Work Group	Date	Theme
1	LPG	April 27	Building an African Market for African LPG – Collaboration on Continent-Wide Production, Aggregation, Logistics, Risk Mitigation, Financing and Market Development
2	Storage & Distribution	April 29	Developing a robust Storage & Distribution Roadmap to ensure a world-class African Petroleum Products Supply Chain
3	Refining & Specifications	May 25	Upgrading African Refineries to produce Cleaner Fuels
4	HSE & Quality	May 27	HSEQ as a License-to-Operate Issue for African Downstream Operations
5	Human Capital	June 22	Strategic Human Resources - Aligning Human Capacity Development objectives with Business Goals
6	Sustainable Financing	June 24	Sustainable Finance Plan for Africa
7	Regulation	July 27	Role of Regulators in ensuring Compliance with AFRI Fuels Roadmap

Virtual ARDA WEEK 2021 – 11 to 13 October

- Theme: “*Developing Africa’s Downstream Energy Transition Plan*”
- ARDA 15-Year Anniversary (2006-2021)
 - Implementation of actionable roadmap to effectively transition Africa’s current primary energy mix towards more sustainable, lower-carbon footprint over time
 - Solve challenges for future of African Downstream oil industry with key industry players
- Contact: **info@afrra.org** for more information on ARDA WEEK 2021

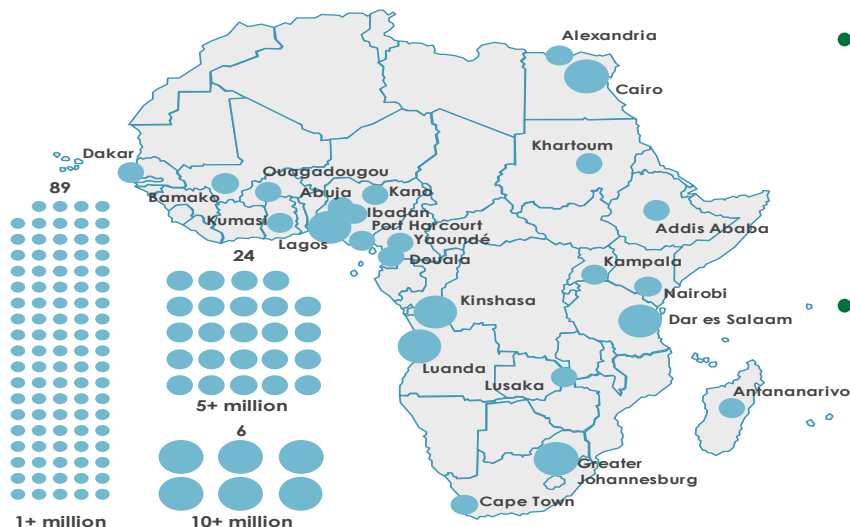


Africa's Growing Petroleum Products Demand must be met with Cleaner Fuels



- IEA forecasts fossil fuels demand in Africa to grow by ~45% by 2040
 - Fossil fuels expected to maintain ~60% of primary energy mix
- Major urban population growth to result in increased pollution
- Coordinated transition to cleaner fuels critical to address potential public health issues
- **Africa must first focus on cleaner transport and cooking fuels before embarking on global NZE energy transition plan(s)**

African Cities by population - 2035

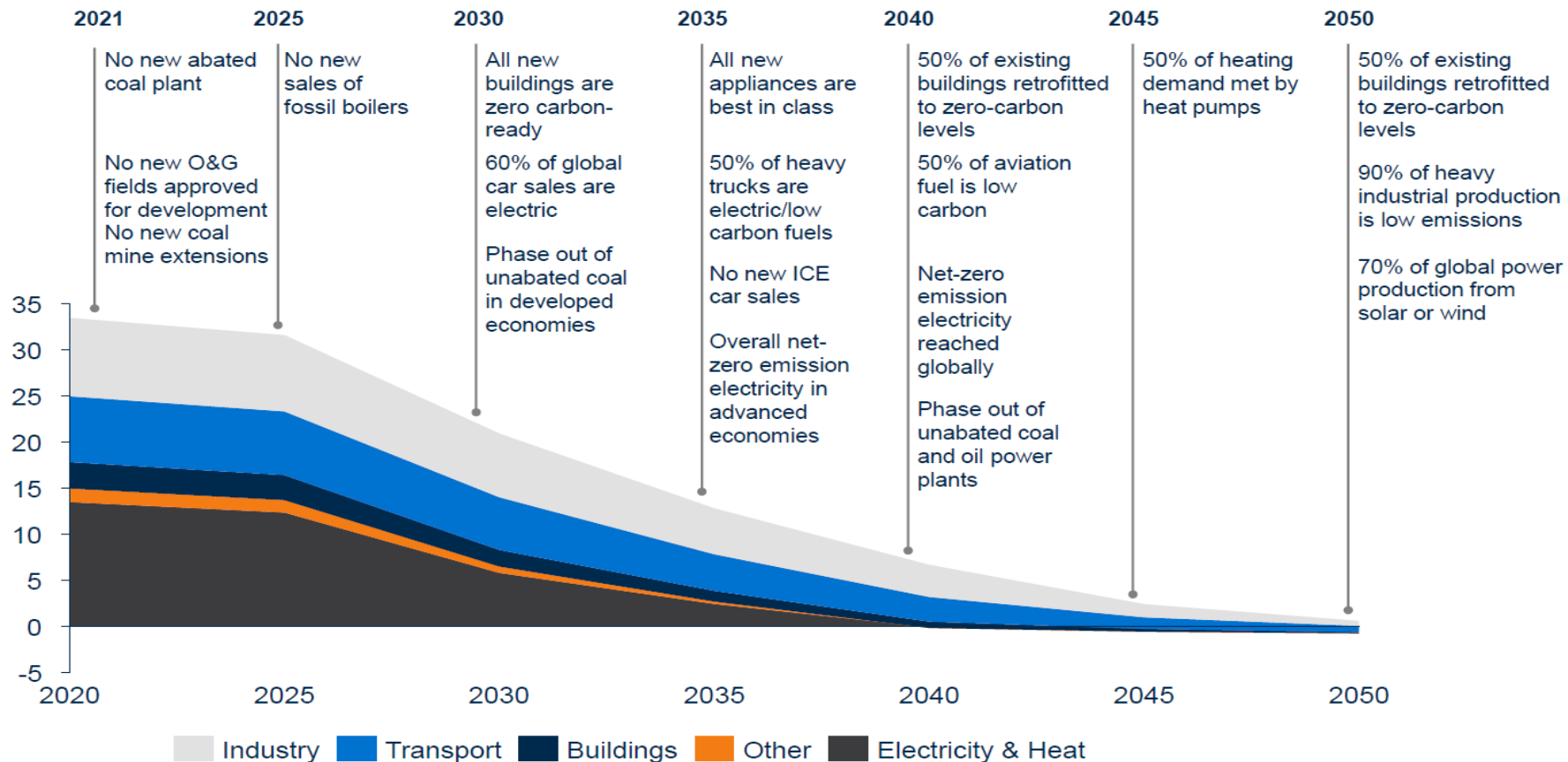


Proposed Global Energy Transition Plan to Net Zero Emissions by 2050 (IEA) Exists.....



GT of CO₂ eq pa

Source: IEA – Net Zero Emissions by 2050



...However, Unique African Energy Transition Plan(s) Unclear

Considerations for African Downstream Energy Transition Plan



Financial

- **Near-term reduction in air pollution via cleaner fuels vs. energy transition via expensive, unproven technology?**
- Limited public funding must target cleaner transport & cooking fuels and associated distribution infrastructure
- Separate financing frameworks required to promote cleaner fuels and power initiatives; global focus primarily on power

Technological

- **Majority of technology required to deliver NZE by 2050 still in development stage (IEA)**
- Africa cannot afford to make the technological jump to replace cooking & transport fuels with renewables now
- Can adopt proven, cost-effective renewables technology later

Other

- Governments must prioritize policies to address public health and environmental issues of clean air, fuels & vehicles
- Complex, inefficient supply chains, intra-African trade challenges impede implementation of cost-effective clean energy solutions
- **AfCFTA presents opportunity for African Union and RECs to implement harmonized Energy Transition Plan**

Africa Energy Transition – Plans for Cleaner Fuels, Power and Renewables must be treated differently



TRANSPORT AND COOKING FUELS

- Refinery Upgrades to produce cleaner, low-sulphur fuels
- Initiative(s) to replace biomass with LPG as cooking fuel
- Storage and Distribution (S&D) infrastructure investments to support cleaner fuels

POWER

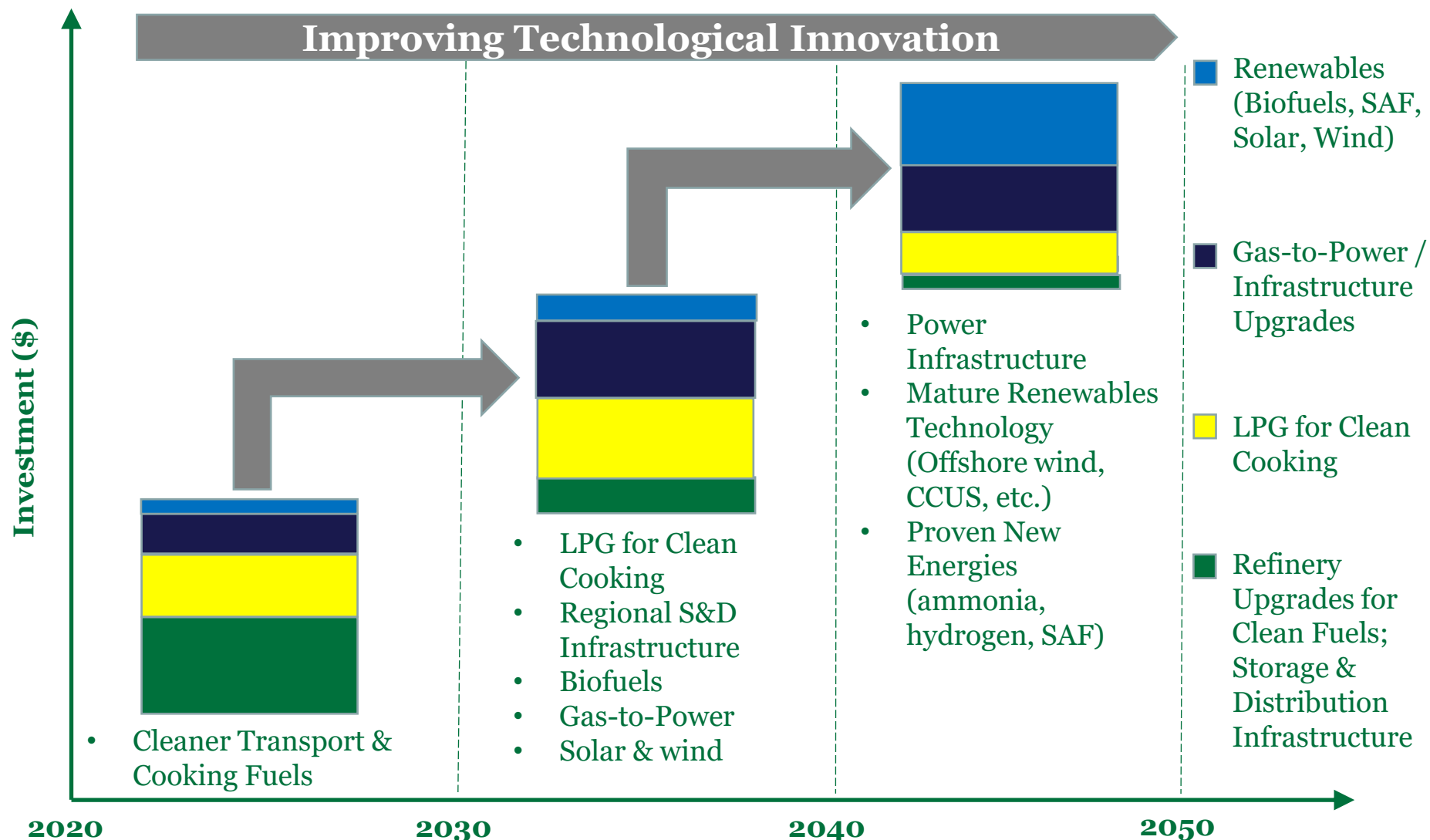
- Focus on natural gas & renewables as near-term, cleaner primary energy source(s) for Africa, replacing coal & oil
- Power transmission upgrades
- Support domestic & industry demand before EVs

NEW ENERGIES FOR TRANSPORT

- Local production, imports, blending and refining of biofuels
- Ammonia and Hydrogen for land and marine use
- Sustainable Aviation Fuels (SAF)

Government policies and public financing critical for success

African Energy Transition – A Tale of Three Decades



Key Takeaways

- Africa's growing energy demands must be met with cleaner fuels to address pollution and public health issues
- Proposed global Energy Transition Plan (Net Zero Emissions by 2050) exists; path for unique African case is unclear
- Africa unable to leapfrog existing cleaner fuel technology to renewables; need economic & regulatory policies to meet current global fuel standards
- Separate implementation strategies necessary for successful cleaner fuels, lower-carbon power and sustainable renewable energy solutions in Africa
- Measured, decade-by-decade Sustainable Finance Plan required to ensure investments are made to deliver unique African Energy Transition Plan(s)

Thank You

ARDA Work Groups – Staffing

Work Group	WG Leader		WG Deputy Leader		Secretary
	Name	Company	Name	Company	
Refining & Specifications	Daouda Kebe	SAR (Senegal)	Evans Mauta	Indeni (Zambia)	Georges Baou
Storage & Distribution	Hippolyte Bassole	SONABHY (B. Faso)	Martin Wanyama	KPC (Kenya)	Jacques Cardeau
Regulation	Esther Anku	NPA (Ghana)	Lidia Ikapi-Neyer	SOGARA (Gabon)	Jacques Cardeau
HSEQ	Evans Mauta	Indeni (Zambia)	Armand Atté	SIR (Cote d'Ivoire)	Georges Baou
Human Capital	Bintou Kamara	PETROCI (Cote d'Ivoire)	Jessica Akintade	Sahara (Nigeria)	Huguette Doh
LPG	Y. Moundele Ngollo	SNPC (Congo)	Stephen Ojo	Rainoil (Nigeria)	J.Marie Dervain
Sustainable Financing	Anibor Kragha	ARDA	Edouard Oulai	SIR (Cote d'Ivoire)	Huguette Doh