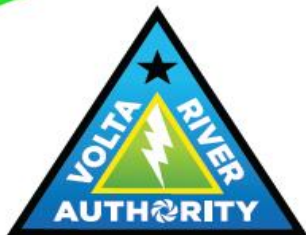


Presentation to Key Stakeholders on VRA's 2017 Performance

October 30, 2018



**VOLTA
RIVER
AUTHORITY**

Presentation Outline

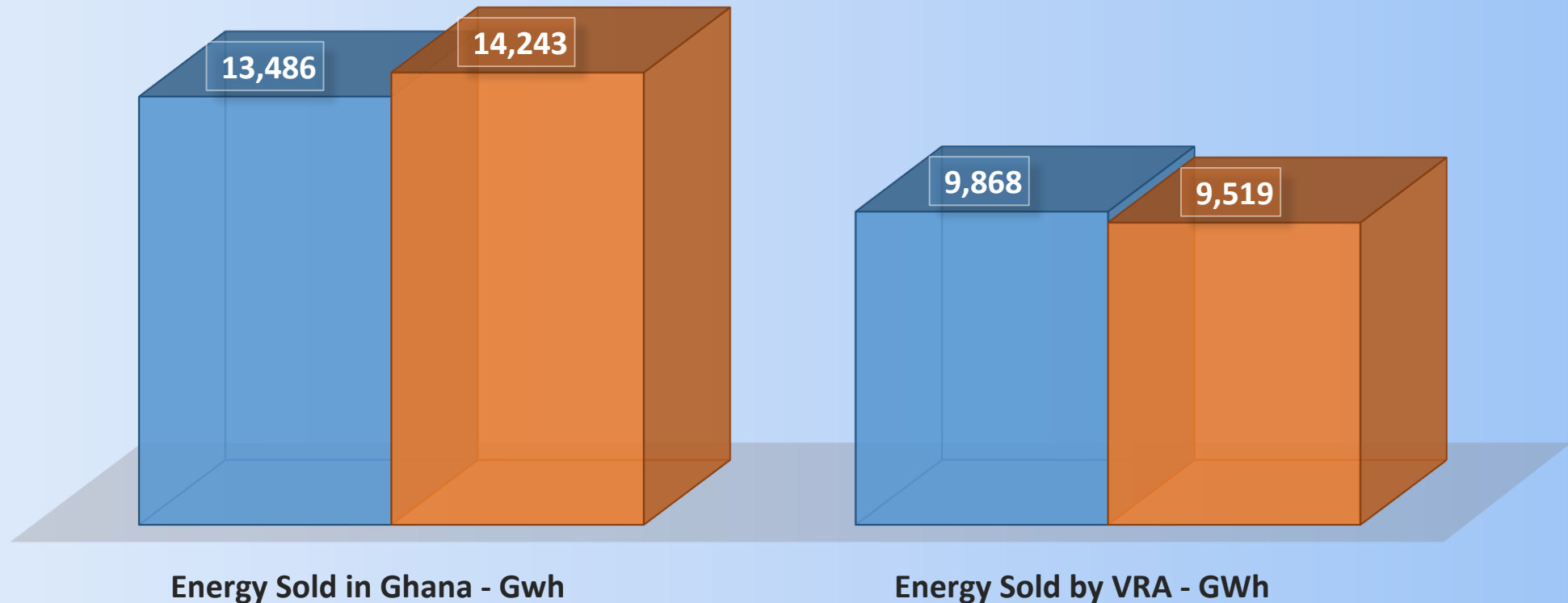
1. Electricity Market Dynamics
2. Operational Performance
3. Financial Performance
4. Generation Capacity and Projects
5. Corporate Social Responsibility
6. Challenges/Opportunities
7. Way Forward

Electricity Market Dynamics

Electricity Demand

ENERGY DEMAND HIGHLIGHTS

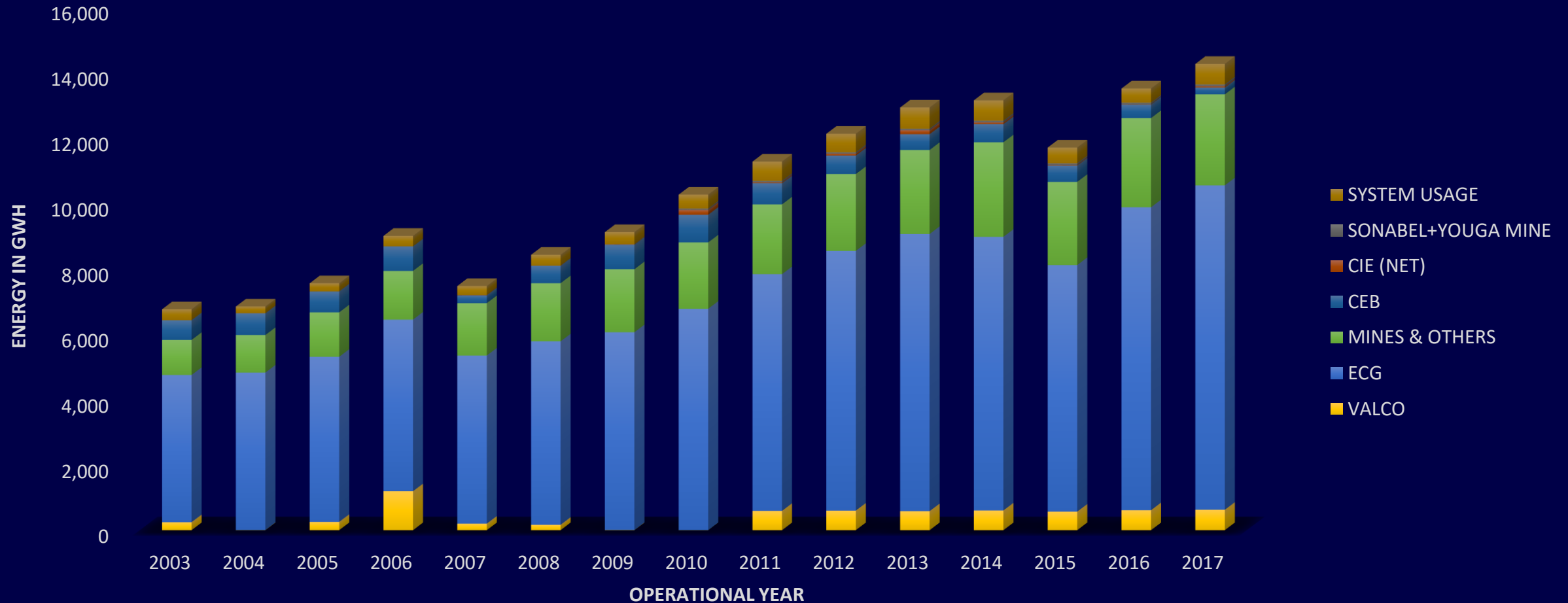
■ 2016 ■ 2017



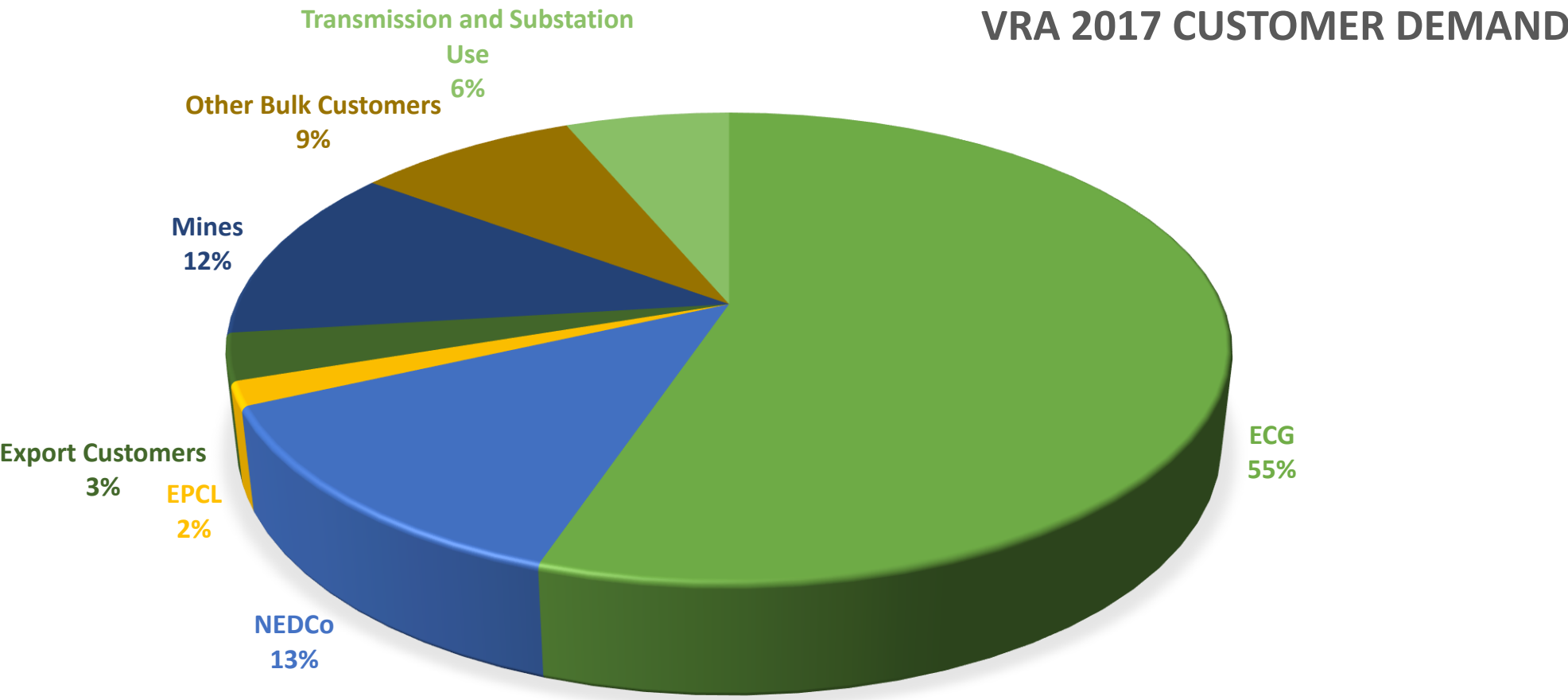
Percentage of National Energy sold by VRA in 2016 and 2017 was 73% and 67% respectively

Ghana Electricity Demand

**ANNUAL ENERGY CONSUMED (GWh) BY CLASS OF CUSTOMER
2003 -- 2017**



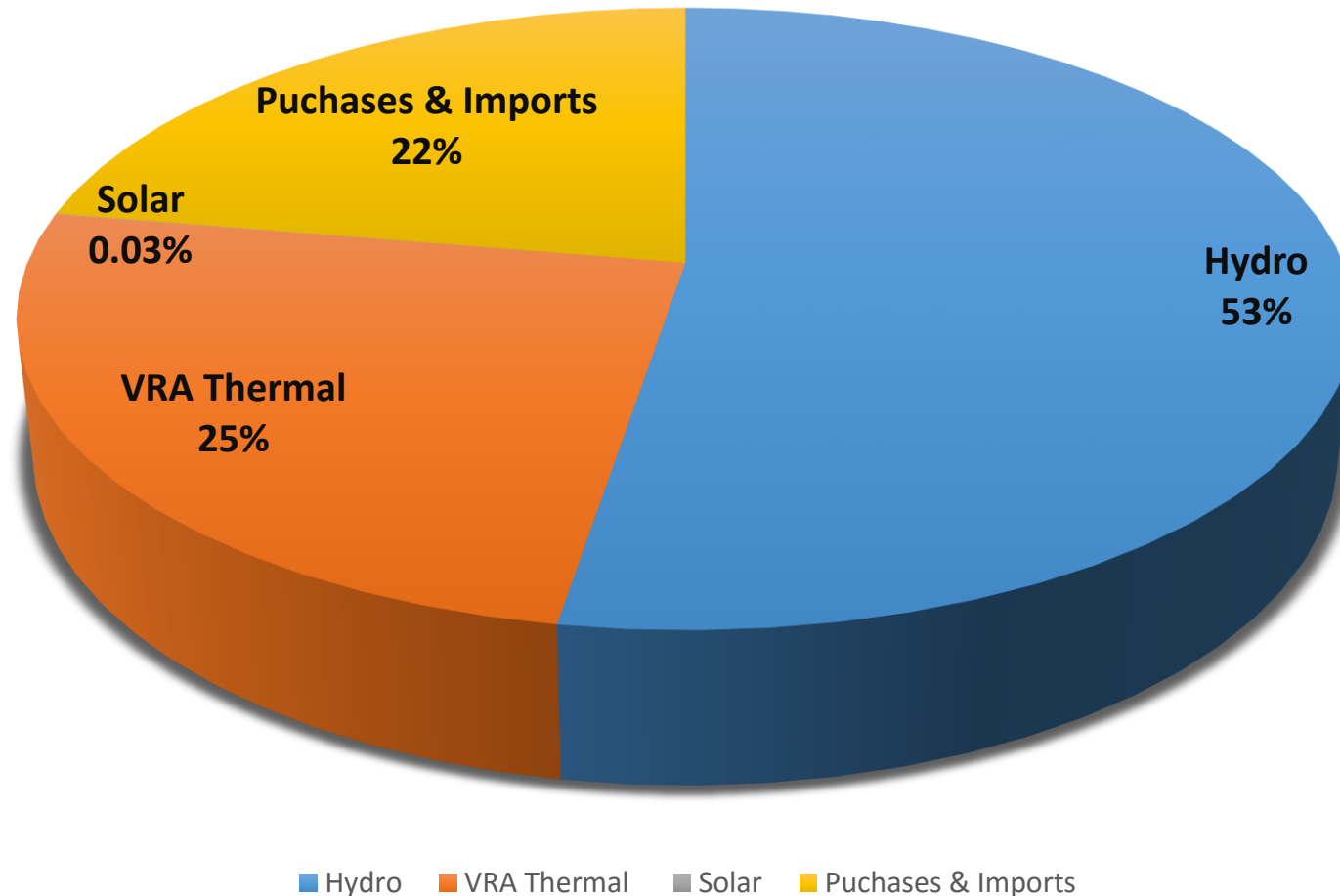
VRA 2017 Customer Electricity Demand



Power sold by VRA to its Customers in 2017 was 9,519 GWh. This was 3.54% lower than the 2016 figure of 9,868 GWh

VRA 2017 Electricity Supply

VRA 2017 Electricity Supply

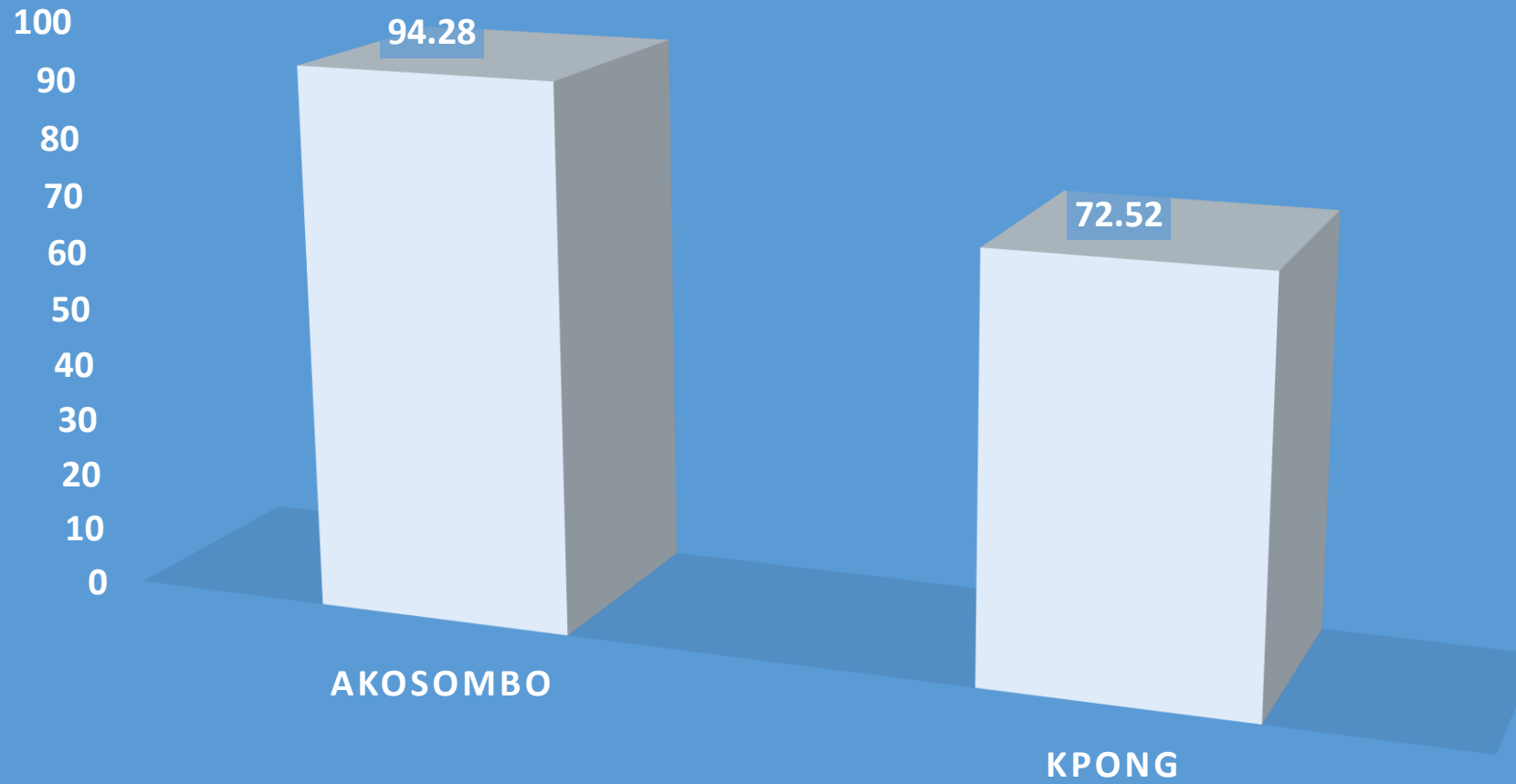


VRA Hydro generation was 5,034GWh (53%) in 2017, compared to 4,617GWh (46%) in 2016

Operational Performance

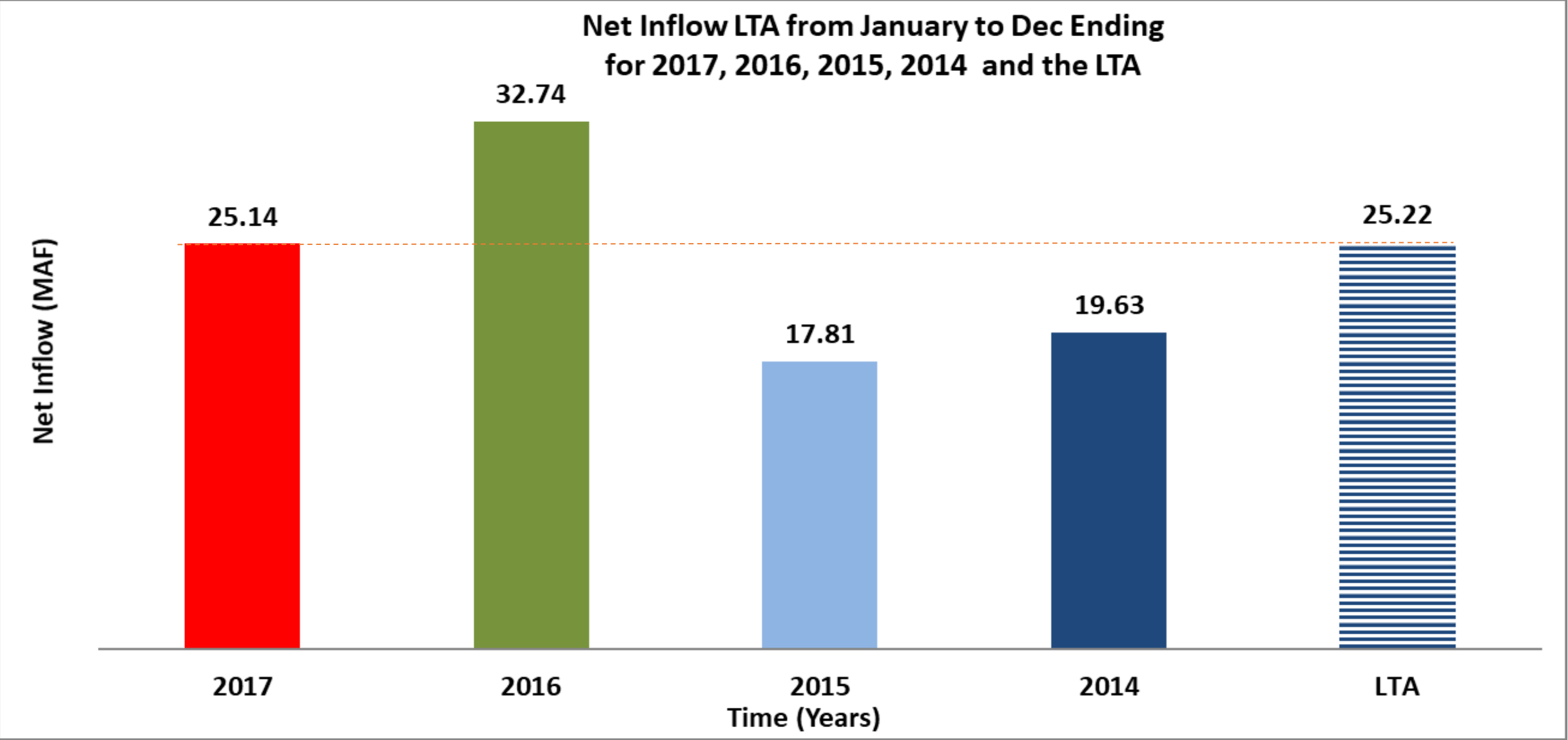
Performance: Hydro Plant availability

AKOSOMBO AND KPONG PLANT AVAILABILITY FACTORS (%)

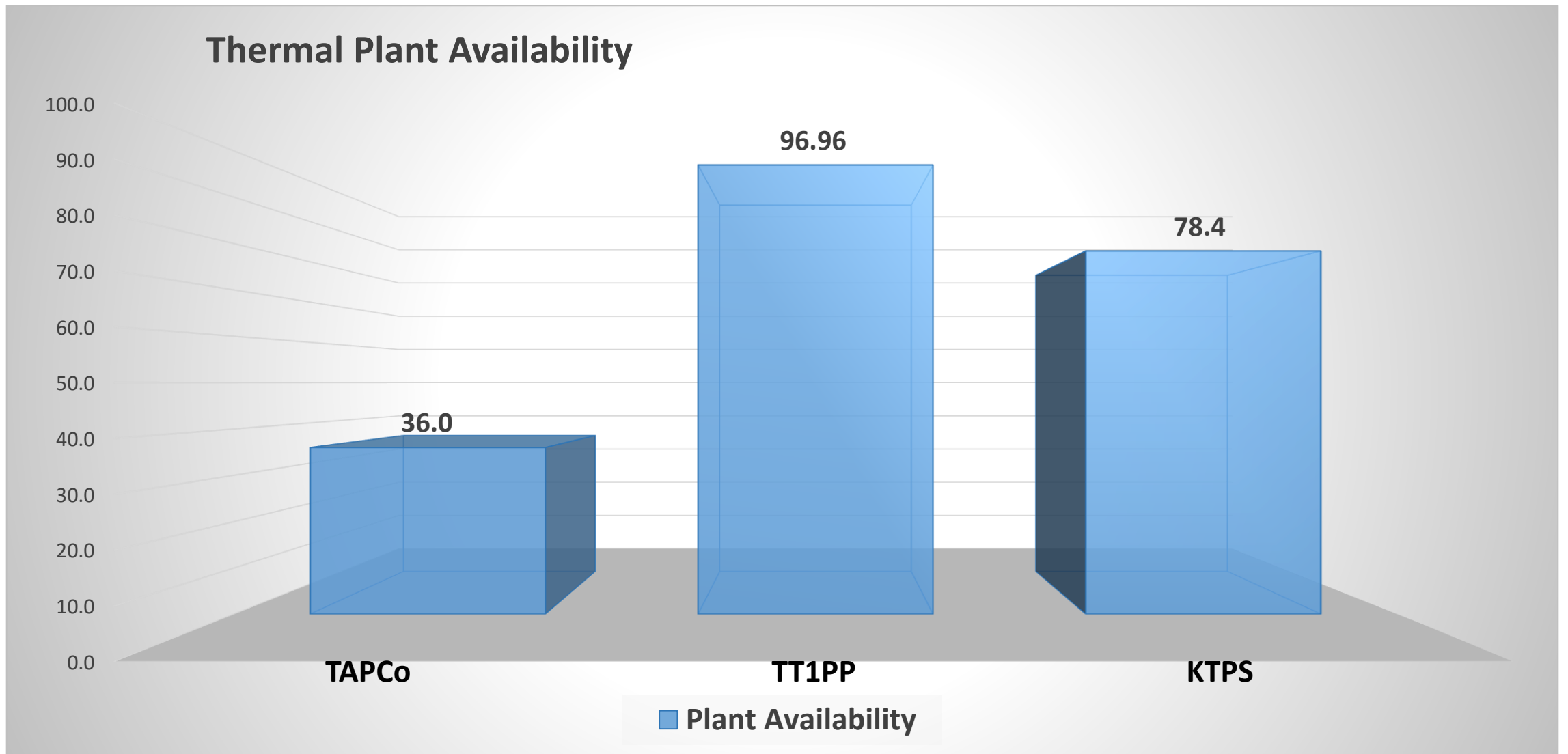


Kpong GS Availability was below the target of 90% because of the Retrofit

Performance – Inflow for Hydro Generation

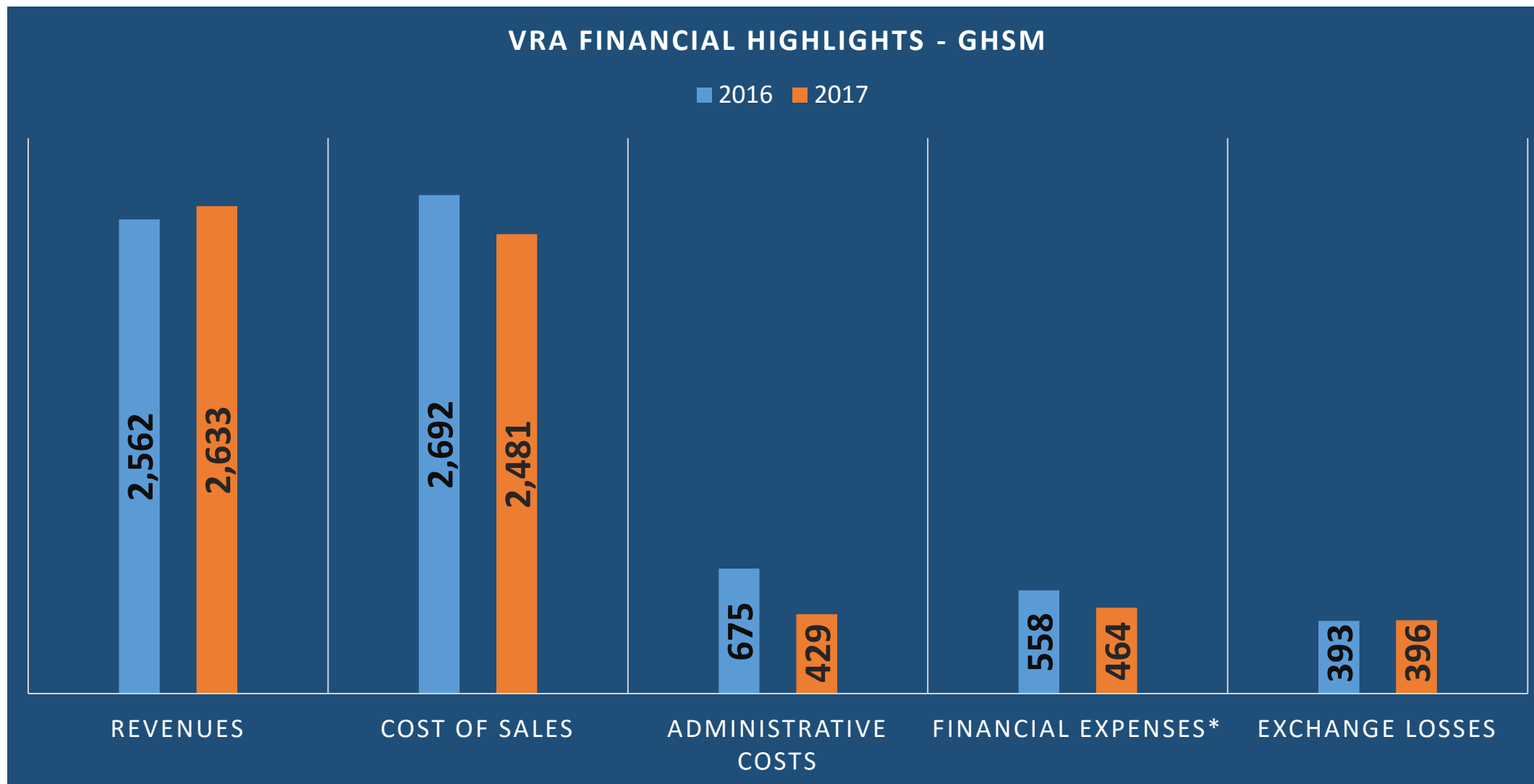


Performance: Thermal Plant availability



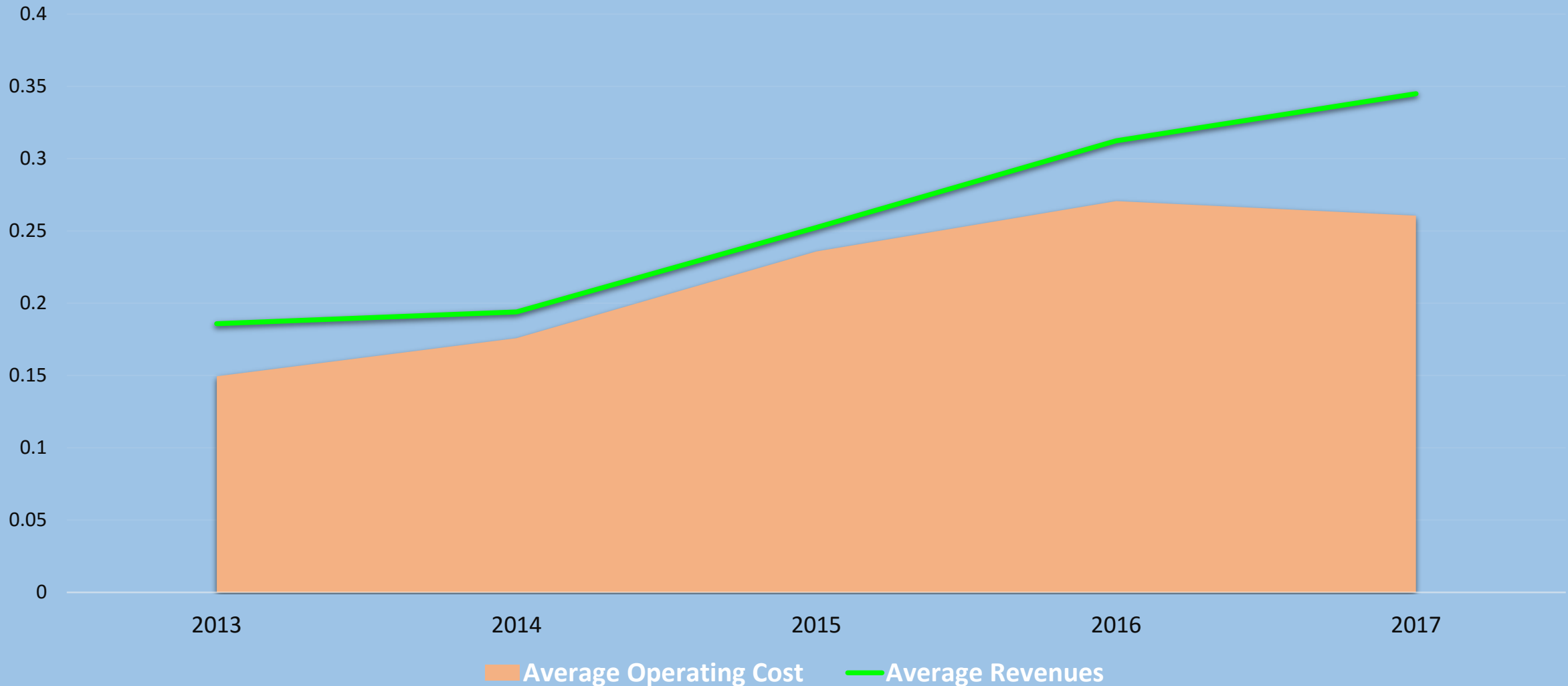
Financial Performance

VRA 2017 Financial Highlights



VRA 2017 Financial Highlights

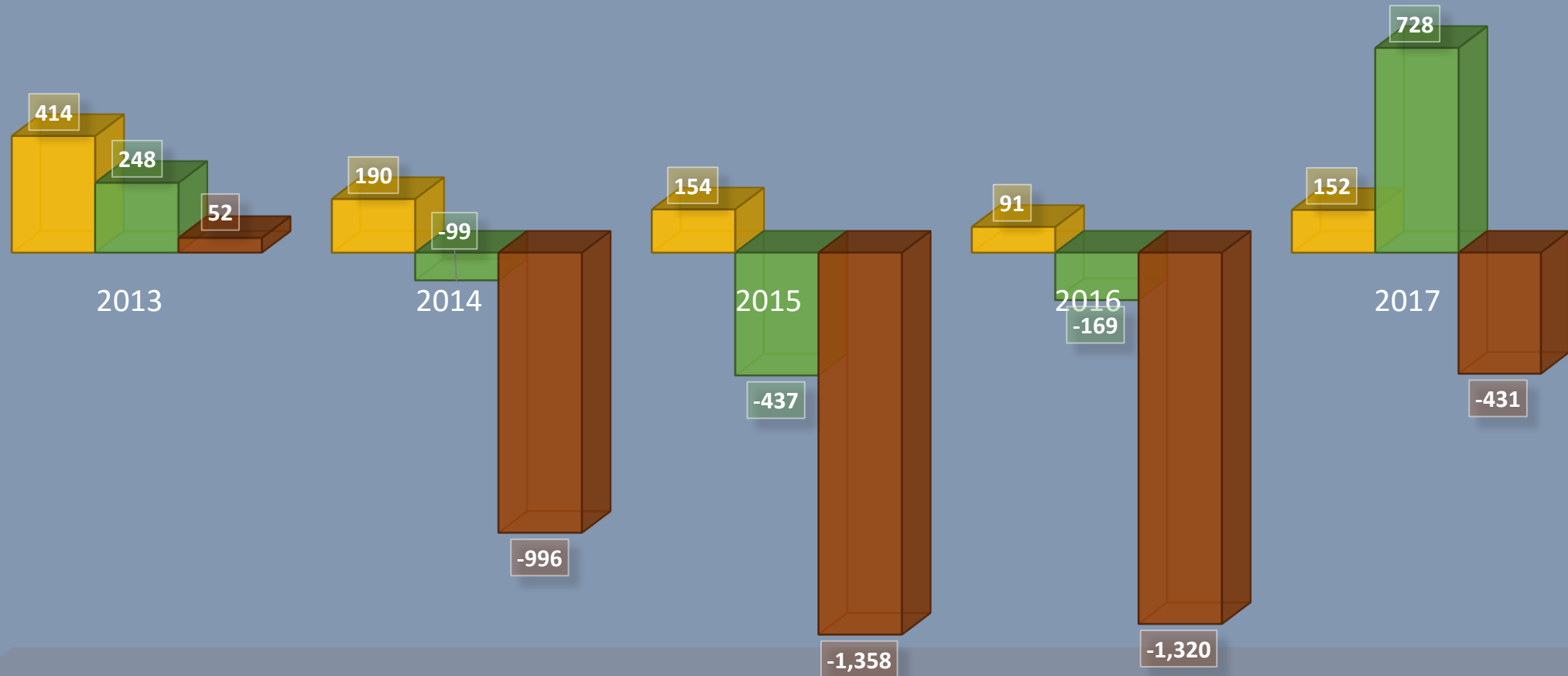
Operating Costs and Revenues- GHS/kWh



VRA Financial Summary

VRA PROFITABILITY HIGHLIGHTS- GHSM

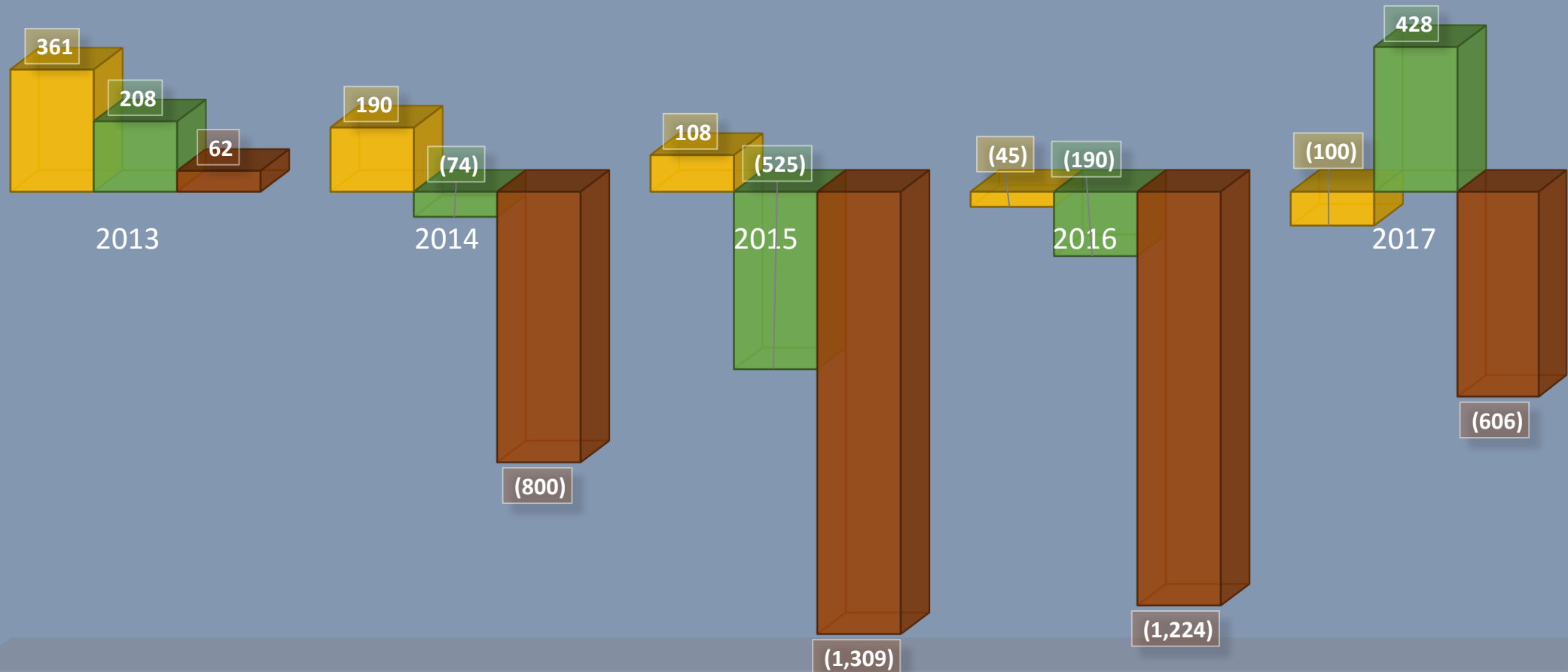
■ Gross Profit ■ Operating Profit ■ Net Profit



Group Financial Performance: 2013 - 2017

GROUP PERFORMANCE -GHS M

■ Gross Profit ■ Operating Profit ■ Net Profit

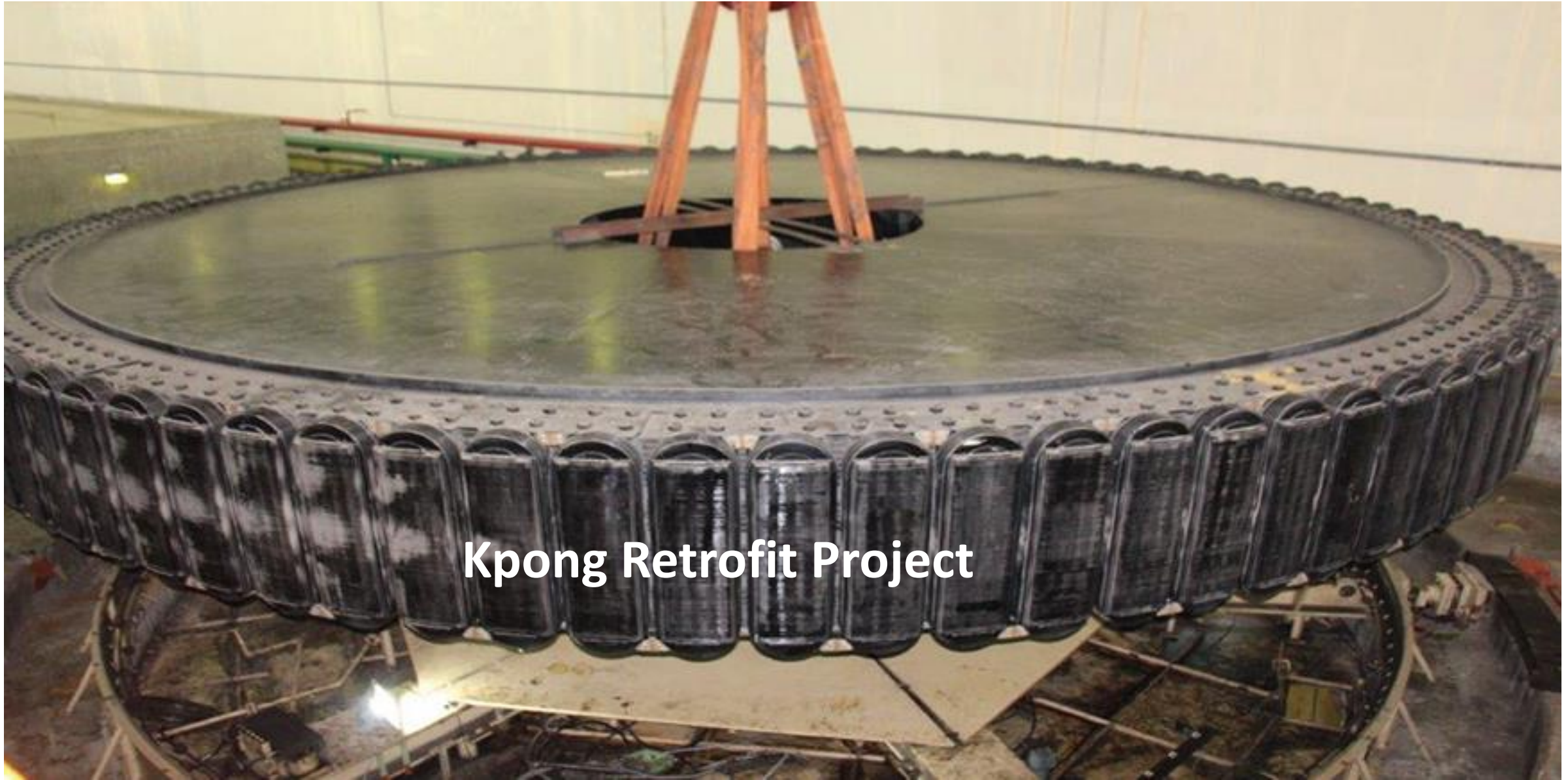


Generation Capacity and Projects

Generating Stations: Installed Capacity

VRA Plant	Installed Capacity (MW)	Dependable Capacity (MW)	Current Available Capacity (MW)
AKOSOMBO	1020	900	900
KPONG	160	140	105
TAPCO	330	300	100
TICO	330	320	320
T3	132	120	0
TT1PP	110	100	100
TT2PP	49.5	45	0
TT2PP Exp	36.5	32	0
MRP	80	70	0
KTPP	220	200	200
SOLAR NAVRONGO	2.5		2.5
TOTAL VRA	2470.5	2227	1727.5
BUI	400	360	220
SAPP	560	540	540*
CENIT	110	100	0
KAR POWER	450	430	430
AMERI	250	230	200
CENTRAL REGION SOLAR	20		20
TOTAL GHANA	4260.5	3887	3137.5

Ongoing Projects



Kpong Retrofit Project

Projects Under Development

Renewables

- 12 MW Solar Project at Kaleo and Lawra
- Development of Bongo Solar Project – 30MW
- Walewale Solar project – 30MW
- Feasibility and ESIA Studies on 2 x 75MW wind farms

Thermal

- Repowering 132 MW T3 (Discussions with Government ongoing)
- Conversion of 110 MW TT1PP into Combined cycle
- Conversion of 220 MW KTPP into Combined cycle.

Hydro

- Pwalugu Multi-purpose Dam Project – 50MW

Nuclear

- Supporting GAEC on GoG Nuclear Programme.

Corporate Social Responsibility

Corporate Social Responsibility

- Annual Contribution of USD 500,000 to the Resettlement Trust Fund
- Provision of Healthcare for lakeside communities
- Ada Dredging Project
- Aquatic weed eradication
- Afforestation



Corporate Social Responsibility



VRA PHU staff carrying out Bilharzia testing at Kebenu Community, Central Tongu



Donation of Lab equipment at Kpone Community SHS, Tema

Corporate Social Responsibility



Provision of Biofil Sanitation facilities at Kebenu Community



Provision of solar-powered mechanized borehole water system

Challenges/Opportunities

Challenges / Opportunities

Challenges

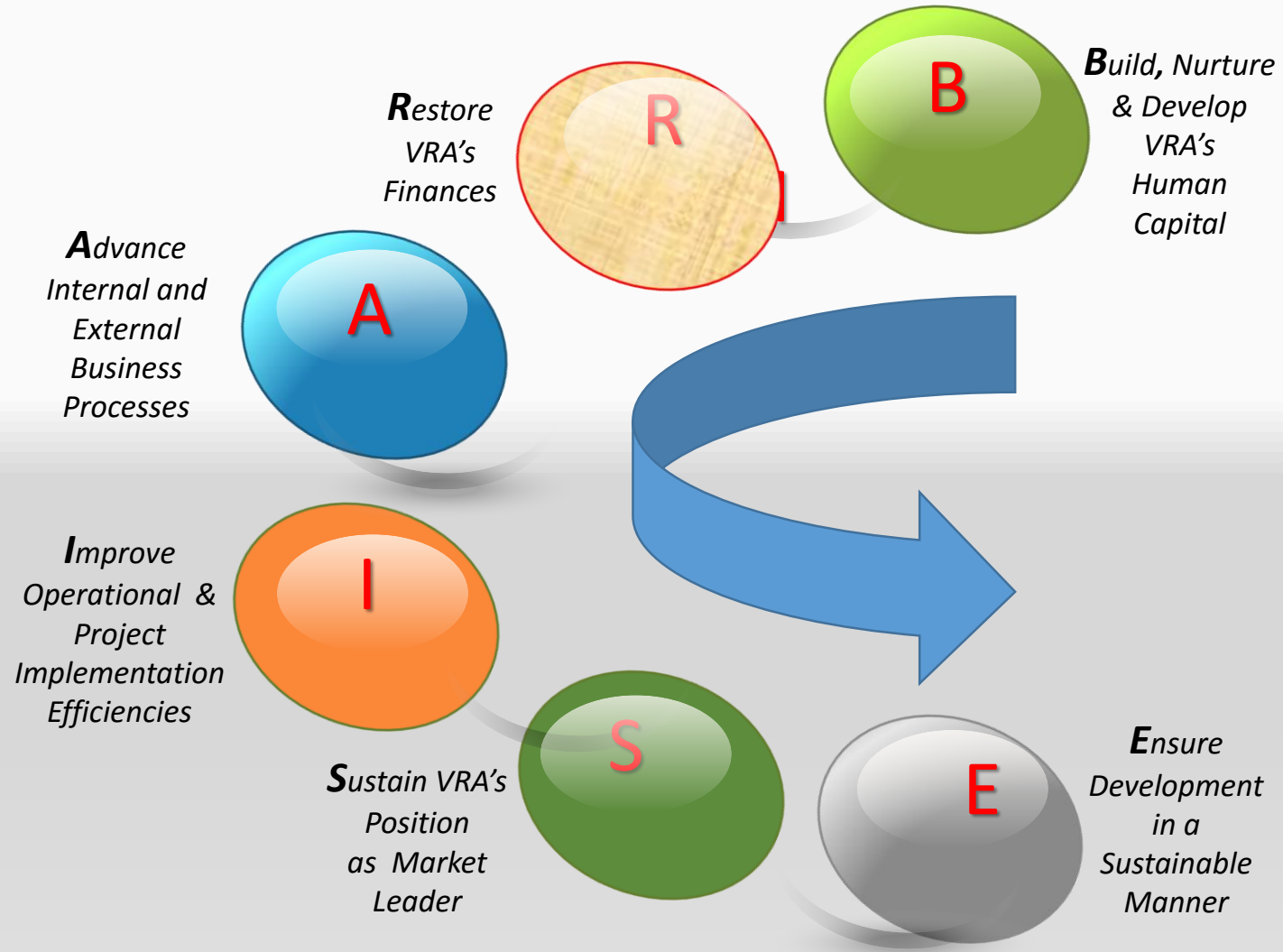
- **Inadequate regulated market tariffs**
- **Liquidity Challenges** with Major customers(ECG, GoG and VALCO)
- **Excess Generation capacity**

Opportunities

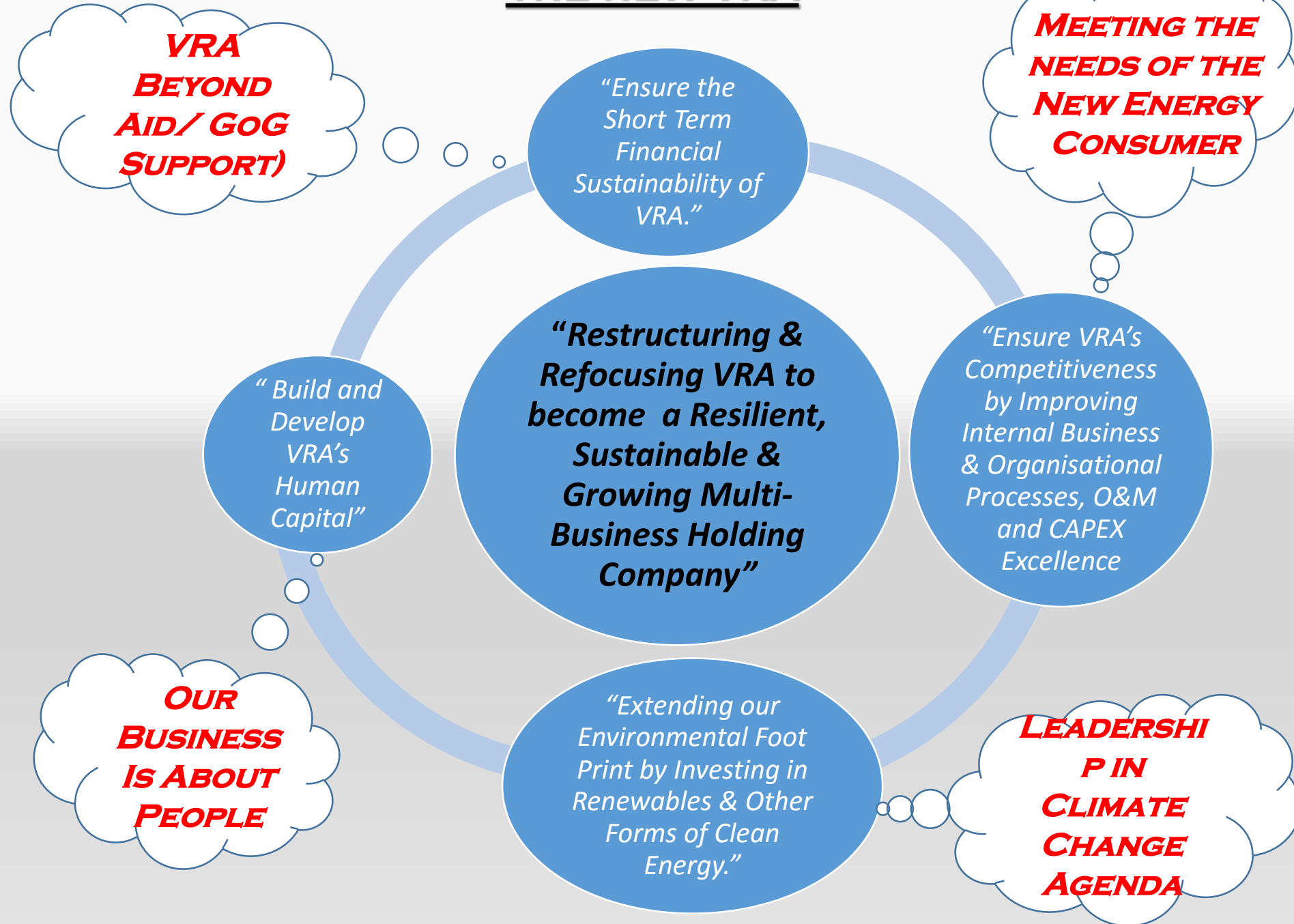
- **Export Market**
- **New Steel Company** and Large Industries under 1D1F
- **Integrated Aluminum Project**
- **Newmont & Ashanti Gold Mine Expansion**

Way Forward

OUR STRATEGY



THE NEW VRA



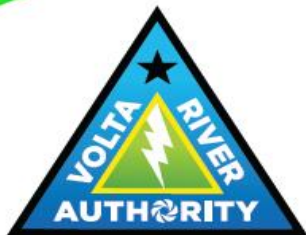
VRA BEYOND AID



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Thank You



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