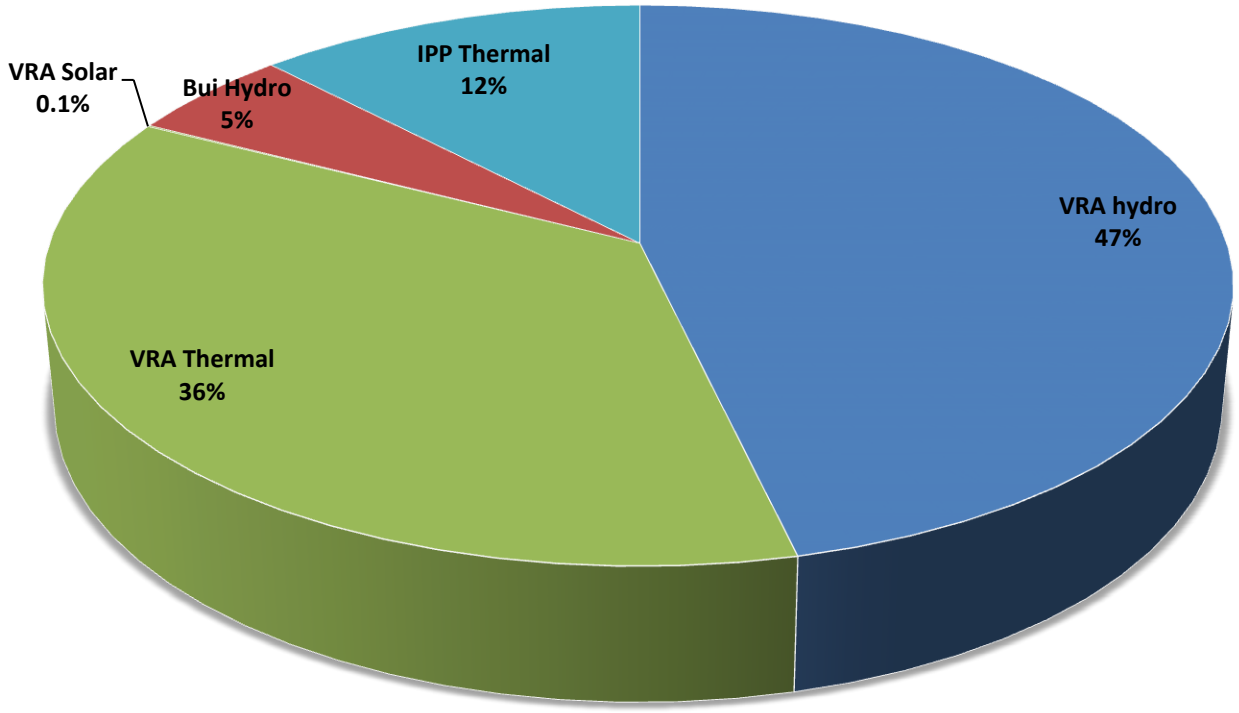
www.vra.com

Ghana's Power Outlook

VOLTA RIVER AUTHORITY

Generation Sources

Installed Generation Sources as at April, 2015



VOLTA RIVER AUTHORITY

- Currently, VRA contributes 75% of the total generation.

Diversification of Supply Sources and Benefits

Supply Sources

- Hydro
- Thermal – Gas, LCO & DFO fired plants
- Solar

NB: VRA is in the process of upgrading all simple cycle plants to combine cycle plants

Benefits

- Enhancement of supply reliability
- Supply security
- Reduction of risk to inflow variability and fuel supply challenges

VOLTA RIVER AUTHORITY

Current Challenges and Mitigation Measures

Challenges

- Inadequate generation capacity reserve
- Lack of Gas supply, limiting thermal generation

Mitigation Measures

- VRA is undertaking more generation projects. VRA is planning to add about 1,000 MW of generation capacity over the next 5 years.
  - This includes upgrade of simple cycle plants to combine cycle to reduce cost of supply.
- Pursuing Solar and wind energy projects
- To secure future gas supply reliability, VRA is pursuing the use of LNG to generate electricity

VOLTA RIVER AUTHORITY

VRA Installed Capacity

Plants	Installed Capacity MW)	Type	Fuel Type
Akosombo	1020	Hydro	Water
Kpong	160	Hydro	Water
TAPCO (T1)	330	Thermal	LCO/Gas
TICO (T2)	220	Thermal	LCO/Gas
T3	132	Thermal	LCO/Gas
TT1PP	110	Thermal	LCO/Gas
TT2PP	49.5	Thermal	DFO/Gas
MRP	80	Thermal	DFO
Solar	2	Renewable	Solar
Total	**2,103.5**		

VOLTA RIVER AUTHORITY

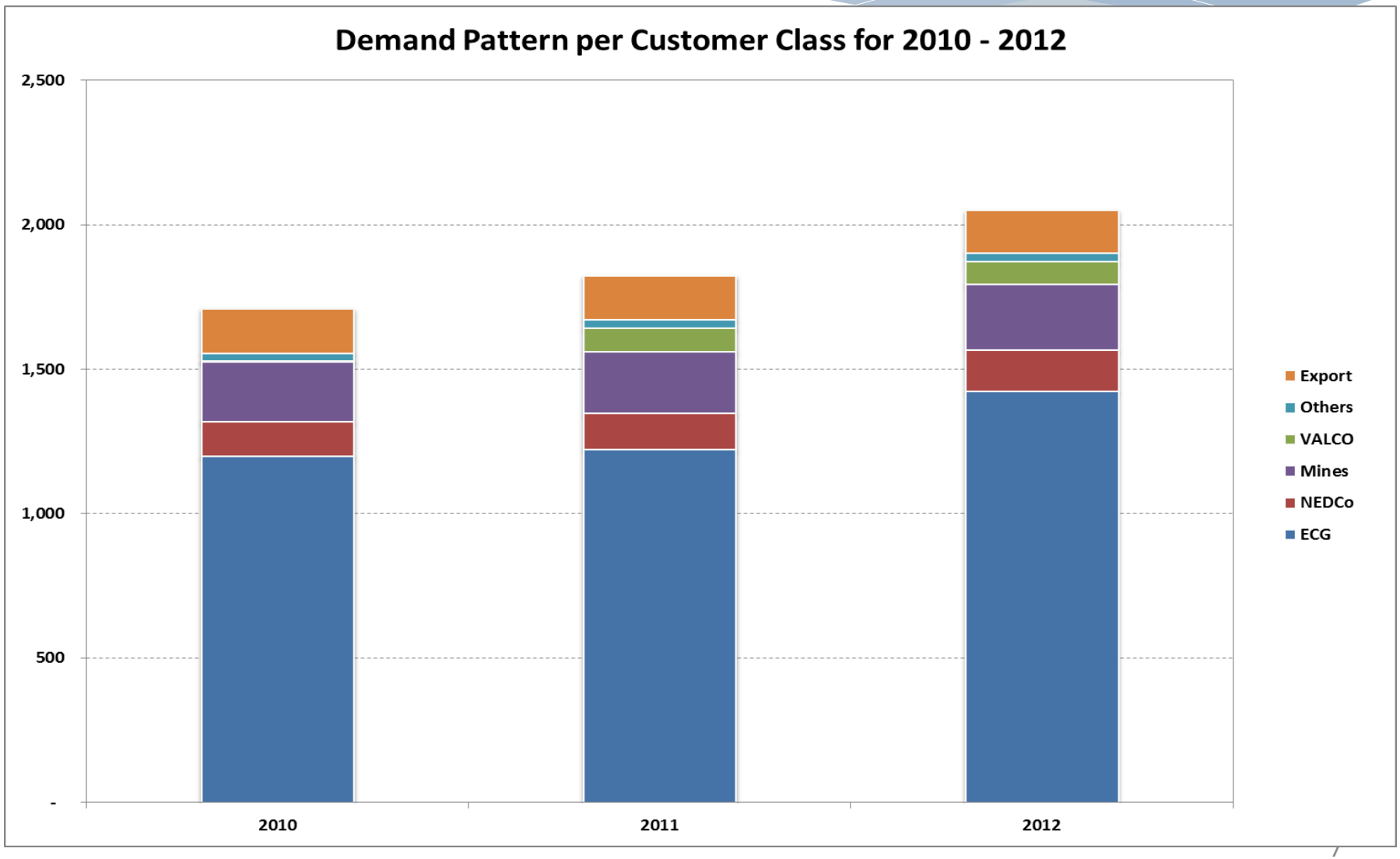
*LCO – Light Crude Oil *DFO – Distillate Fuel Oil

IPP & Other Plants

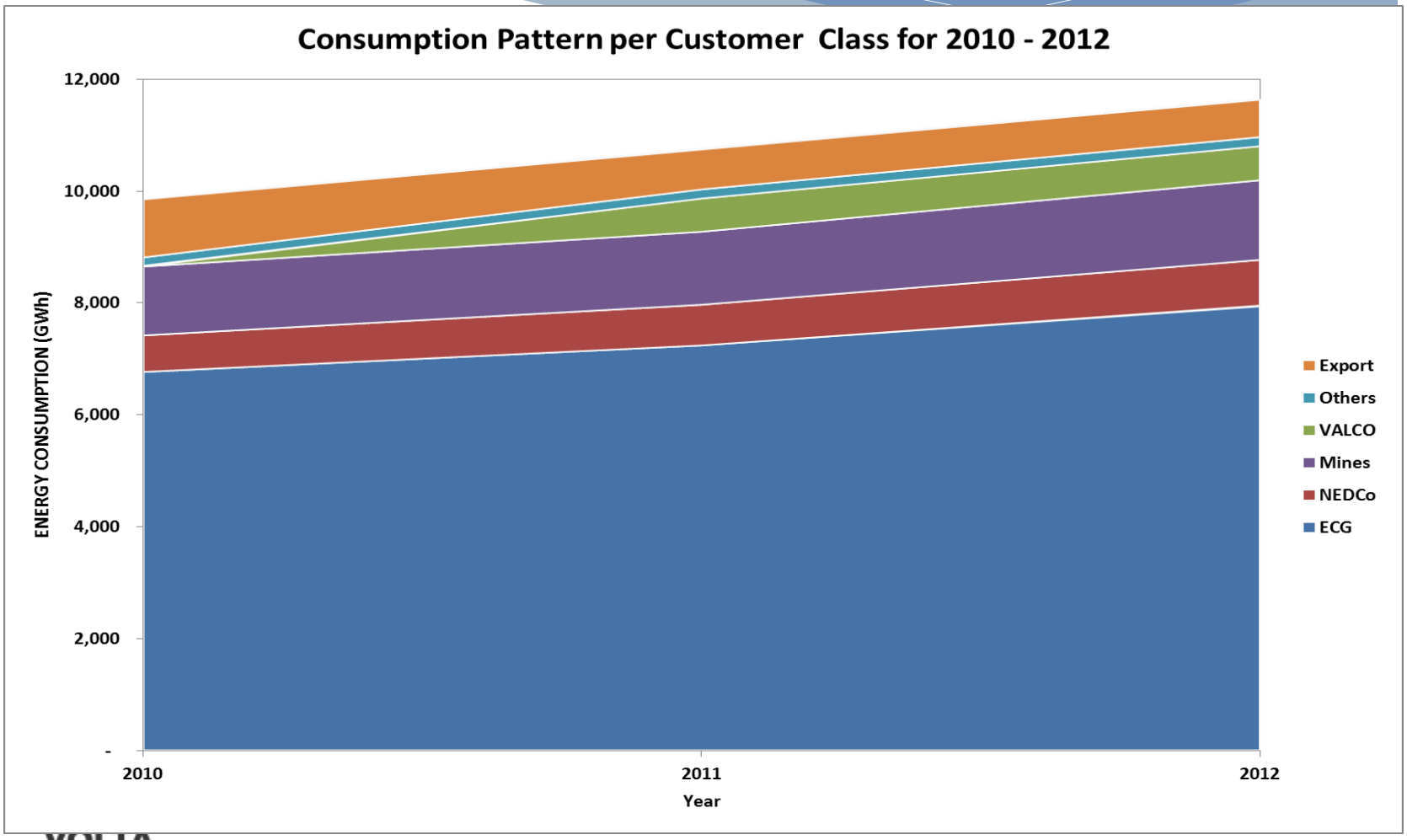
Plants	Installed Capacity (MW)	Type	Fuel Type
Sunon Asogli	200	Thermal	Gas
CENIT	110	Thermal	LCO/Gas
Bui HEP	133	Hydro	Water
Total	**443**		
TOTAL GHANA	**2546.5**		

VOLTA RIVER AUTHORITY

Demand for 2010 - 2012



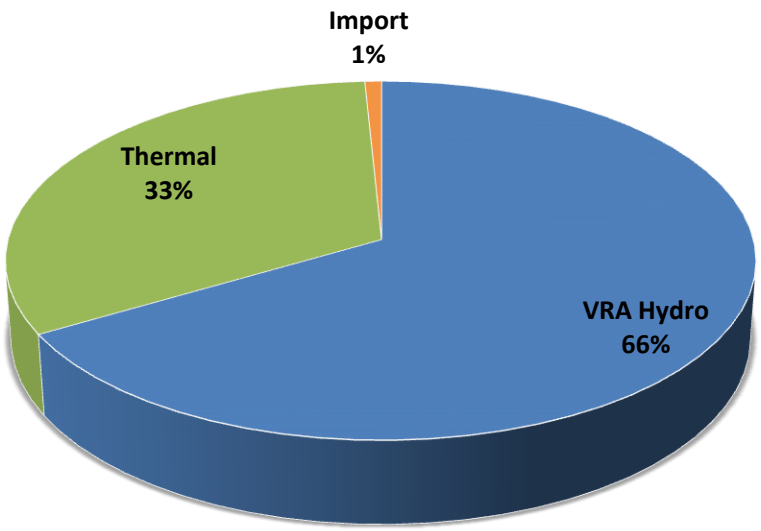
Consumption for 2010 – 2012



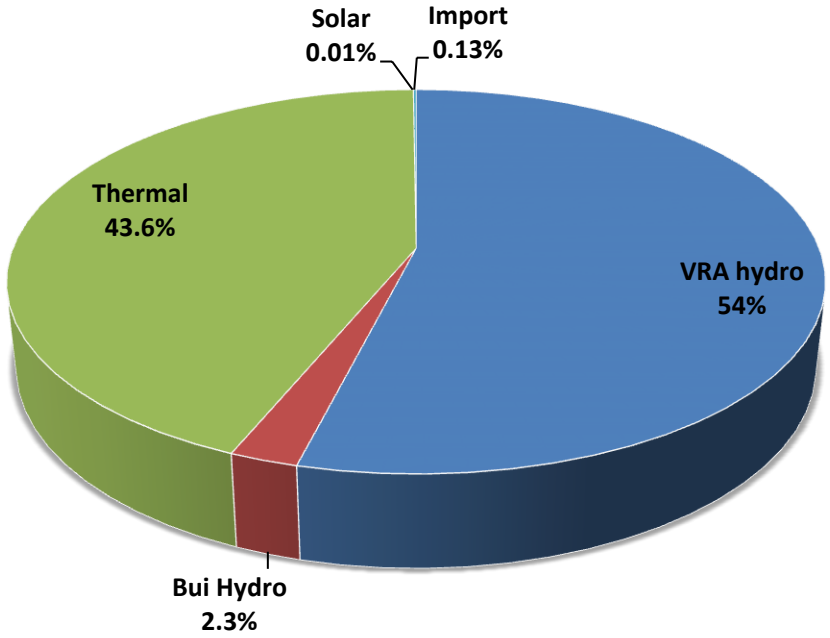
VOLTA RIVER AUTHORITY

Energy Supply for 2012-2013

2012



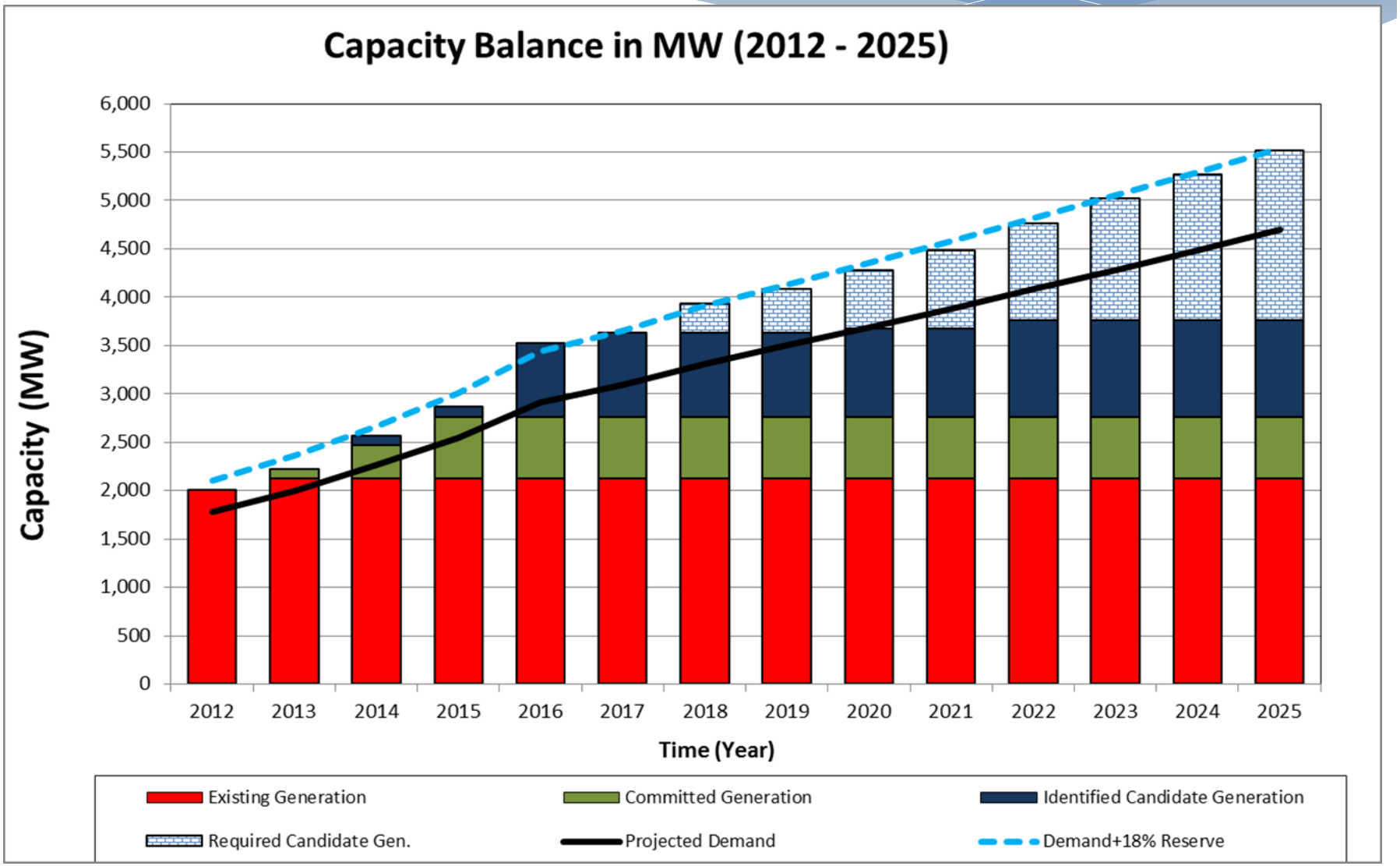
2013



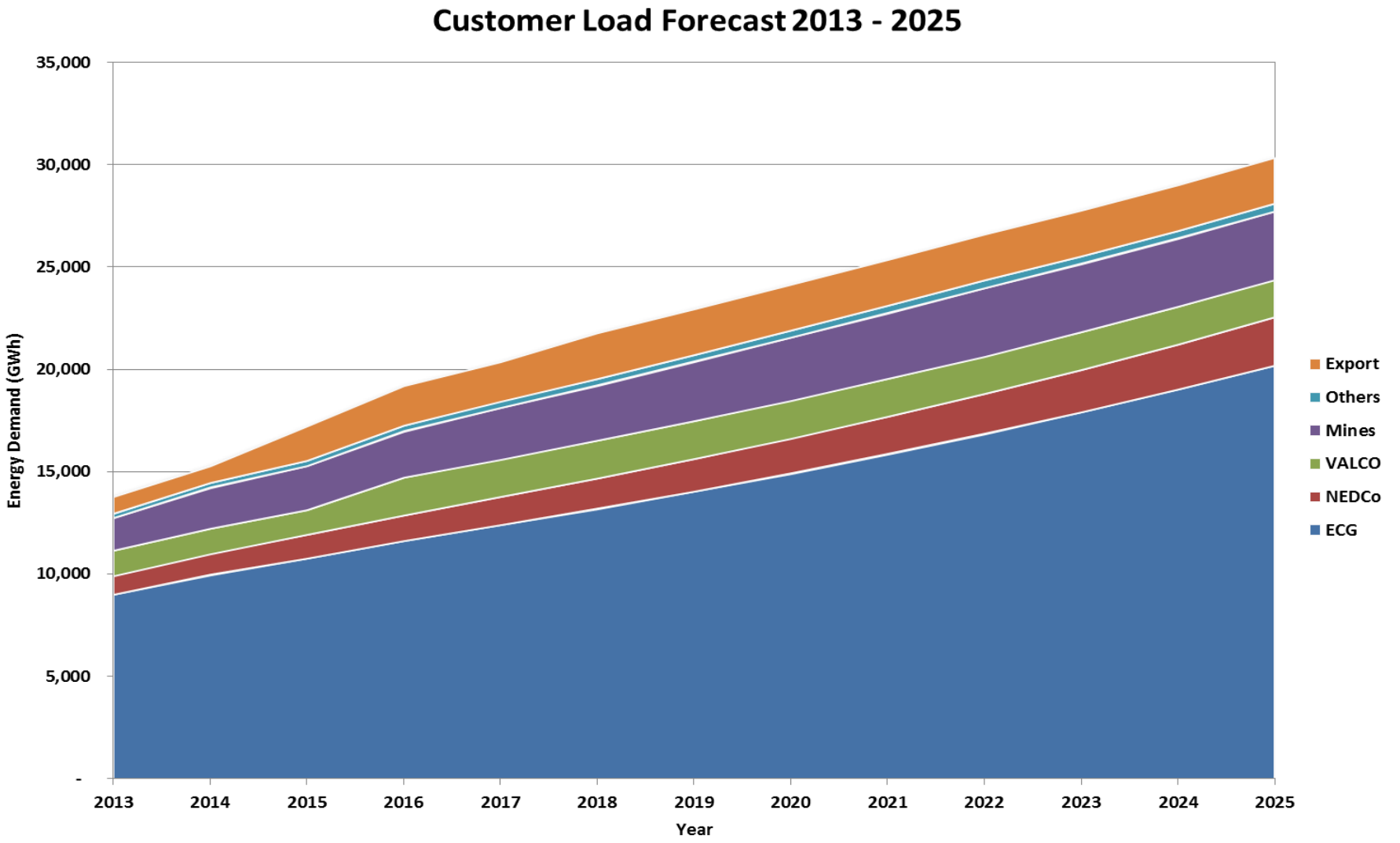
VOLTA RIVER AUTHORITY

- Total supply for 2012 = 12,122 GWh
- Projected supply for 2013 = 13,502 GWh

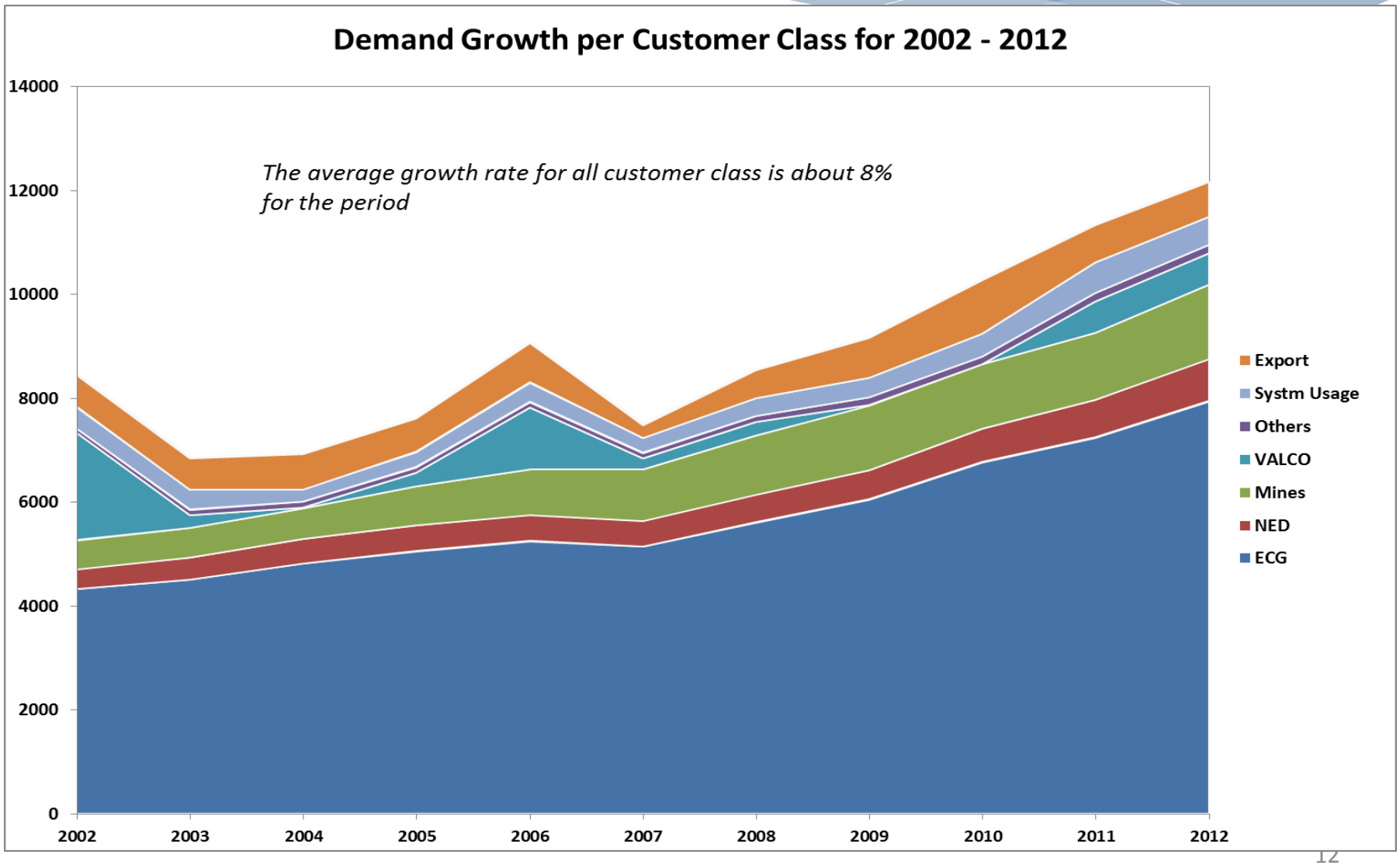
Expansion Plan



2013 – 2025 Energy Demand Forecast



Demand Growth per Customer Class



www.vra.com

Thank You

VOLTA RIVER AUTHORITY