

Electricity Market Integration

OME

Cairo

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EgyptEra
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Objectives Of Regulatory Agency



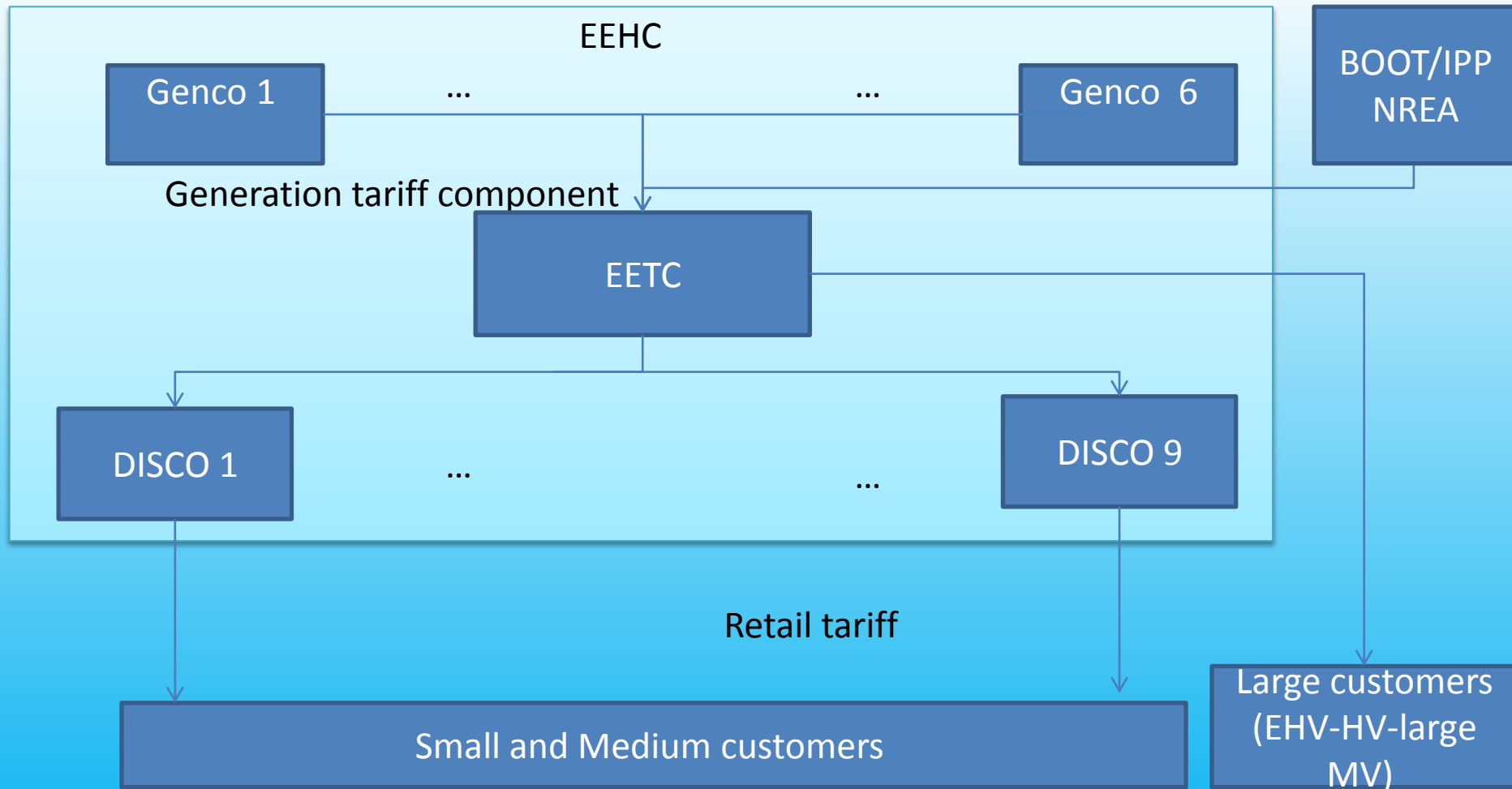
- Regulates and supervises all electricity generation, transmission, and distribution activities.
- Ensures availability of supply to users at the most equitable prices and considers environmental issues.
- Considers interests of customers, producers, transmitters, and distributors
- Prepares for fair competition in the field of electricity including generation and distribution

Objectives of Regulatory Agency



- Prevents any monopoly within the electricity market.
- Making sure that the costs of power production, transmission, and distribution guarantee the interests of all parties involved in these activities
- Ensuring the realization of a fair return to the Electric Utility sector to guarantee the continuity of the activities

Current market structure: Single Buyer Model



Current market structure

Wholesale market	Supply Side	Demand Side	Wholesale price
Fully regulated	EEHC GENCOs	EETC (Single Buyer)	Generation component of final tariff

Retail market	Supply Side	Demand Side	Retail price
Fully regulated	EEHC DISCOs	Captive customers	All inclusive regulated tariff (generation, transmission, distribution, sale)

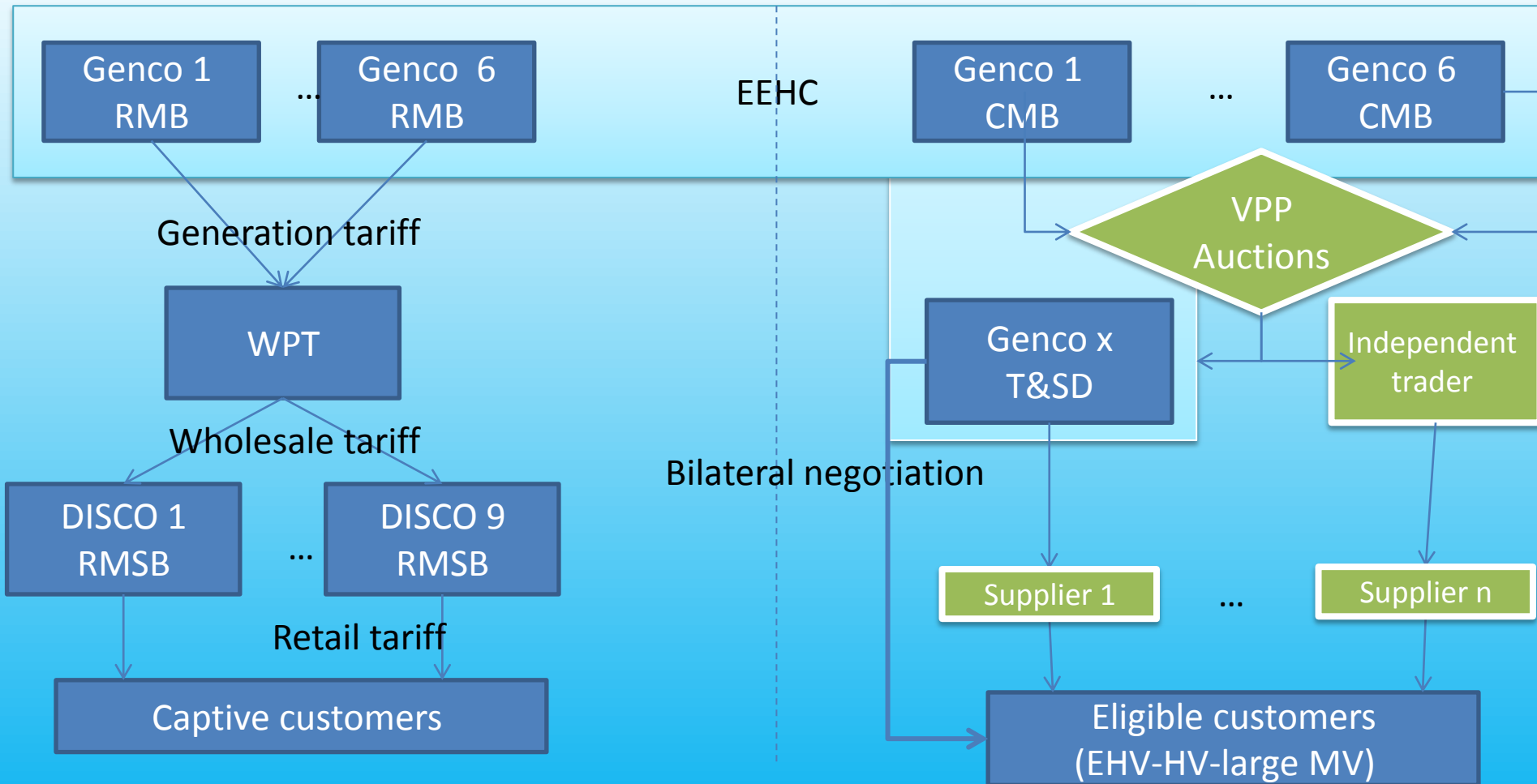
Purpose of the Market Reform



Leading the Egyptian electricity sector from a vertically integrated regulated monopoly to a competitive market in order to:

- Increase efficiency (total costs reduction)
- Foster generation capacity development
- Attract new investments in the sector
- Improve the quality of the service
- Reduce the environmental impact of electricity production and consumption

Proposal of market structure in Phase 1



Proposal of market structure in Phase 1

Wholesale market	Supply Side	Demand Side	Wholesale Price
Fully regulated segment	EEHC GENCOs RMB*	WPT	Regulated: wholesale tariff set by ERA
Partially regulated segment	-EEHC GENCOs CMB** -EEHC GENCOs T&SD*** -independent traders	-Load Serving Entities -large eligible customers (EHV-HV)	Market based: -bilateral negotiation -VPP auctions
Retail market	Supply Side	Demand Side	Retail Price
Fully regulated segment	DISCO RMSB^	captive customers (MV, LV)	Regulated: retail tariff set by ERA
Partially regulated segment	-DISCO CMSB^^ -independent suppliers	small and medium eligible customers (HV)	Market based: take it or leave it offer

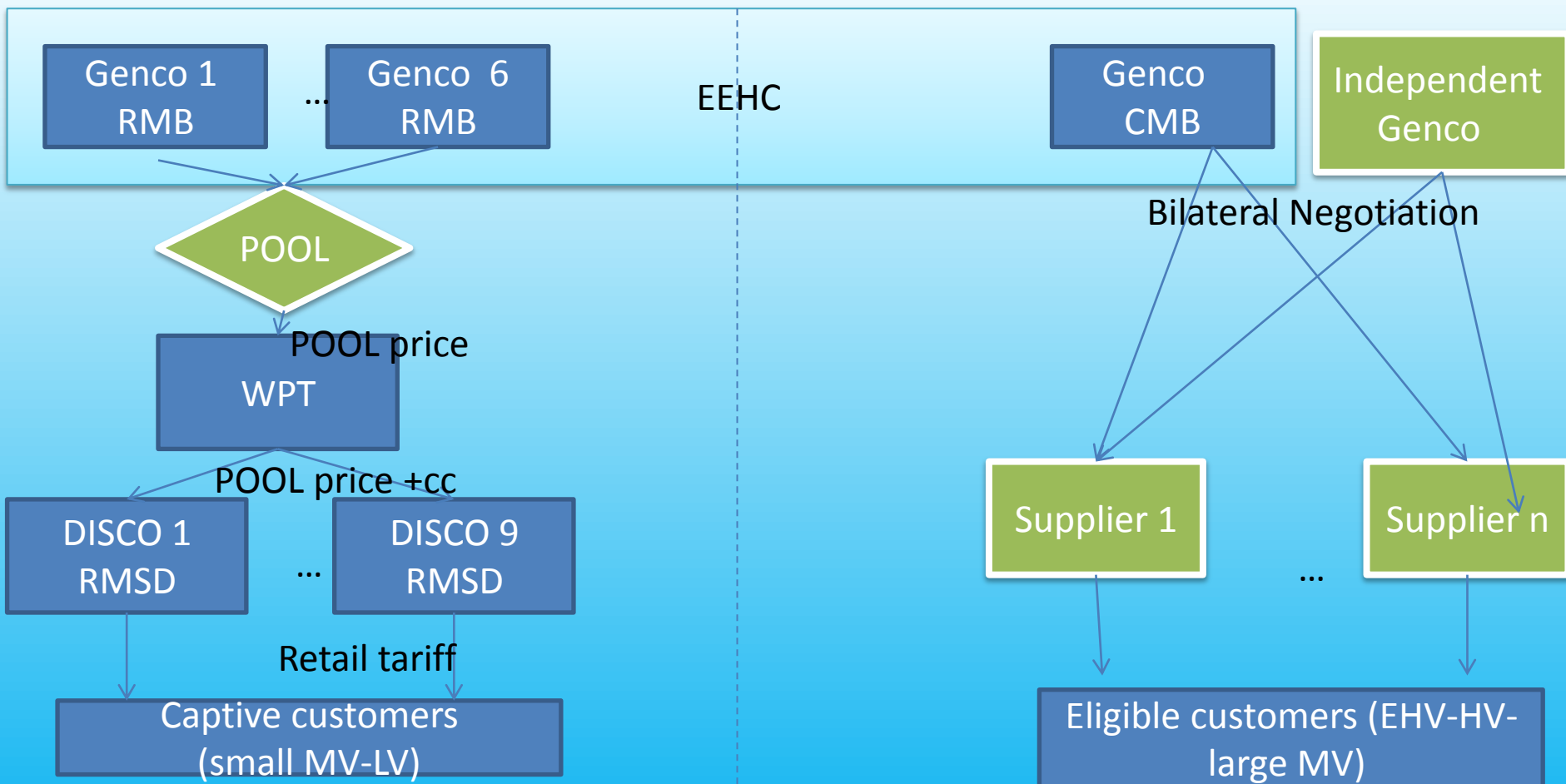
*Regulated Market Branch **Competitive Market Branch

***Trade and Sale Division

^Regulate Market Sale Branch

^^Competitive Market Sale Branch

Proposal of market structure in Phase 2



Proposal of market structure in Phase 2

Wholesale market	Supply Side	Demand Side	Wholesale Price
Fully regulated segment	EEHC GENCOs RMB*	WPT	Regulated: power pool
Partially regulated segment	-EEHC GENCOs CMB** -Independent GENCOs	-LSE -large eligible customers	Market based: bilateral negotiation

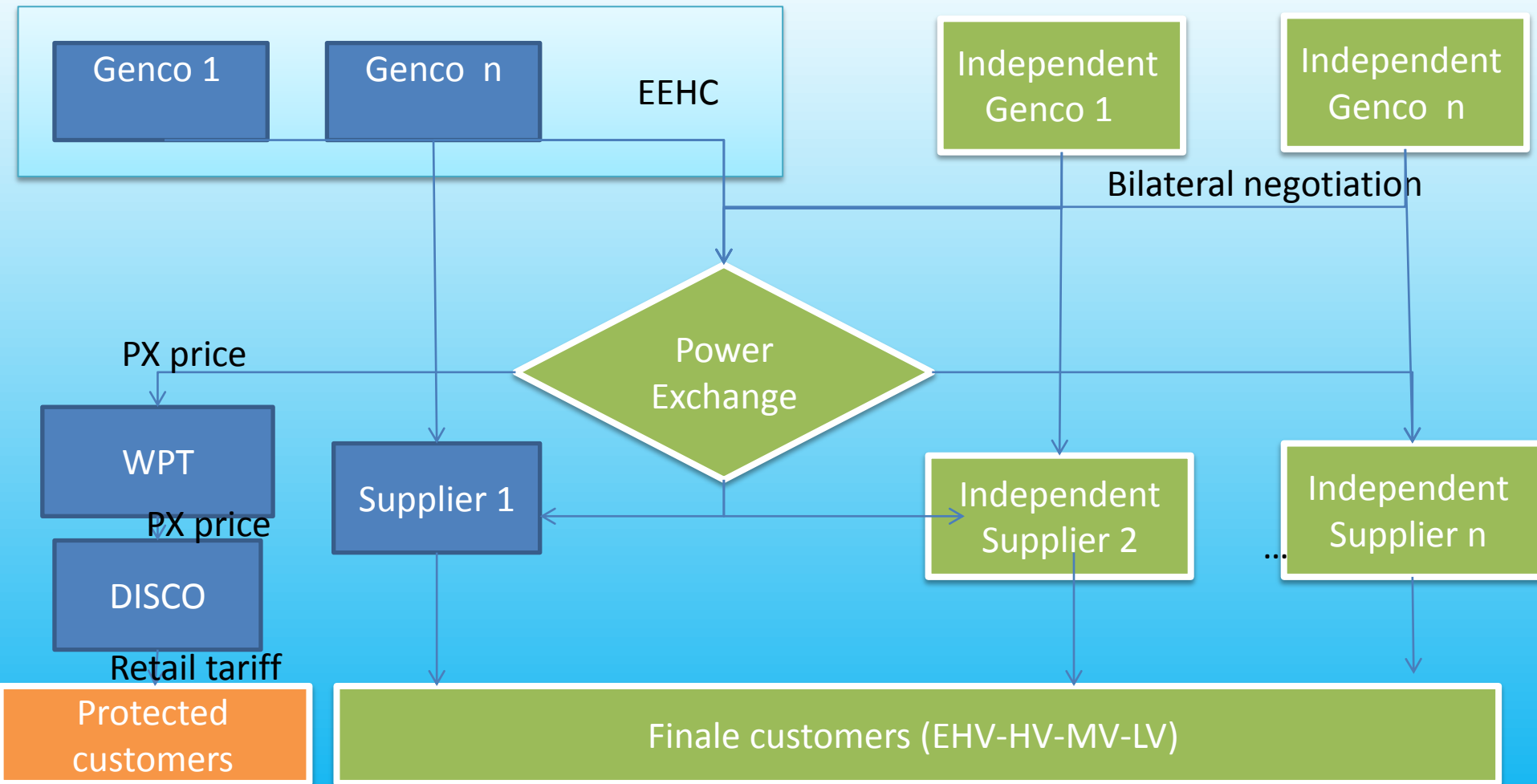
Retail market	Supply Side	Demand Side	Retail Price
Fully regulated segment	DISCOs RMSD^	Captive customers	Regulated: retail tariff set by ERA
Partially regulated segment	LSE	Small eligible customers	Market based: take it or leave it offer

*Regulated Market Branch

**Competitive Market Branch

^Regulate Market Sale Branch

Proposal of final market structure (Phase 3): competitive market with protection service



fully competitive market

Wholesale market	Supply Side	Demand Side	Wholesale Price
Unique market place (no market segmentation)	-incumbent (EEHC GENCOs) -independent national producers - importers	-independent traders -wholesale public trader (WPT) -independent suppliers -large customers	Market based: -bilateral negotiation -power exchange

Retail market	Supply Side	Demand Side	Retail Price
Protected segment	-DISCOs -Independent Supplier	protected customers	Regulated: retail tariff
Fully liberalized segment	Independent suppliers EEHC Supply Co	small and medium customers	Market based: take it or leave it offer

Challenges

- How to introduce competition in wholesale market: all 6 GENCOs belong to the same owner (EEHC)
- How to protect eligible customers from market power
- How to treat 'newcomers'
- How to deal with subsidies and cross-subsidies without hampering social cohesion: electricity tariffs are below the actual costs due to social reasons
 - To clarify that HV 'overpay' / subsidize other categories?

Legislations - The Electricity Law - July 2015



- The law has been designed to reflect the planned market reform as well as to strengthen the role regulatory agency (EgyptERA).
- The law enacts – but not limited to - the following:
 - The Role of the regulatory agency (EgyptERA)
 - Establishing a competitive electricity market
 - Establishing Transmission System Operator (TSO) and provide assurances for its independence and full unbundling from other sector participants.
 - Promotion of RES, EE and Cogeneration
 - Tariffs are ratified by EgyptERA

Regulations

Market Documents and codes	Licenses
<ul style="list-style-type: none"> • Market Design • Market Rules • Technical codes • Market Contracts 	<ul style="list-style-type: none"> • Generation • Distribution • O&M
<ul style="list-style-type: none"> • Monitoring and Evaluation 	<ul style="list-style-type: none"> • Development of CoGen, RE and EE
<ul style="list-style-type: none"> • Performance Evaluation • Quality of Supply • Investments Planning 	<ul style="list-style-type: none"> • Measures • Monitoring
<ul style="list-style-type: none"> • Cost and Pricing 	<ul style="list-style-type: none"> • Consumer Protection
<ul style="list-style-type: none"> • Cost of Service • Tariff reforms • Network use Tariff • Feed-in Tariffs 	<ul style="list-style-type: none"> • Quality of Service • Consumer empowering
Dispute Resolution	Communication and Awareness

*Thank
You*