

Enerjisa Energy Day Presentation

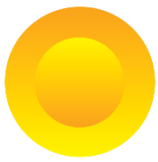
March 1, 2016



e-on

SABANCI

Hizmete Özel



Content

➤ Turkish Electricity Market

➤ Enerjisa Company Profile

➤ Strategic Priorities and Competitive Advantages

➤ Distribution & Retail Regions

➤ Distribution Business Update

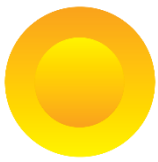
➤ Retail Business Update

➤ Generation Business Update

➤ Financials in Detail

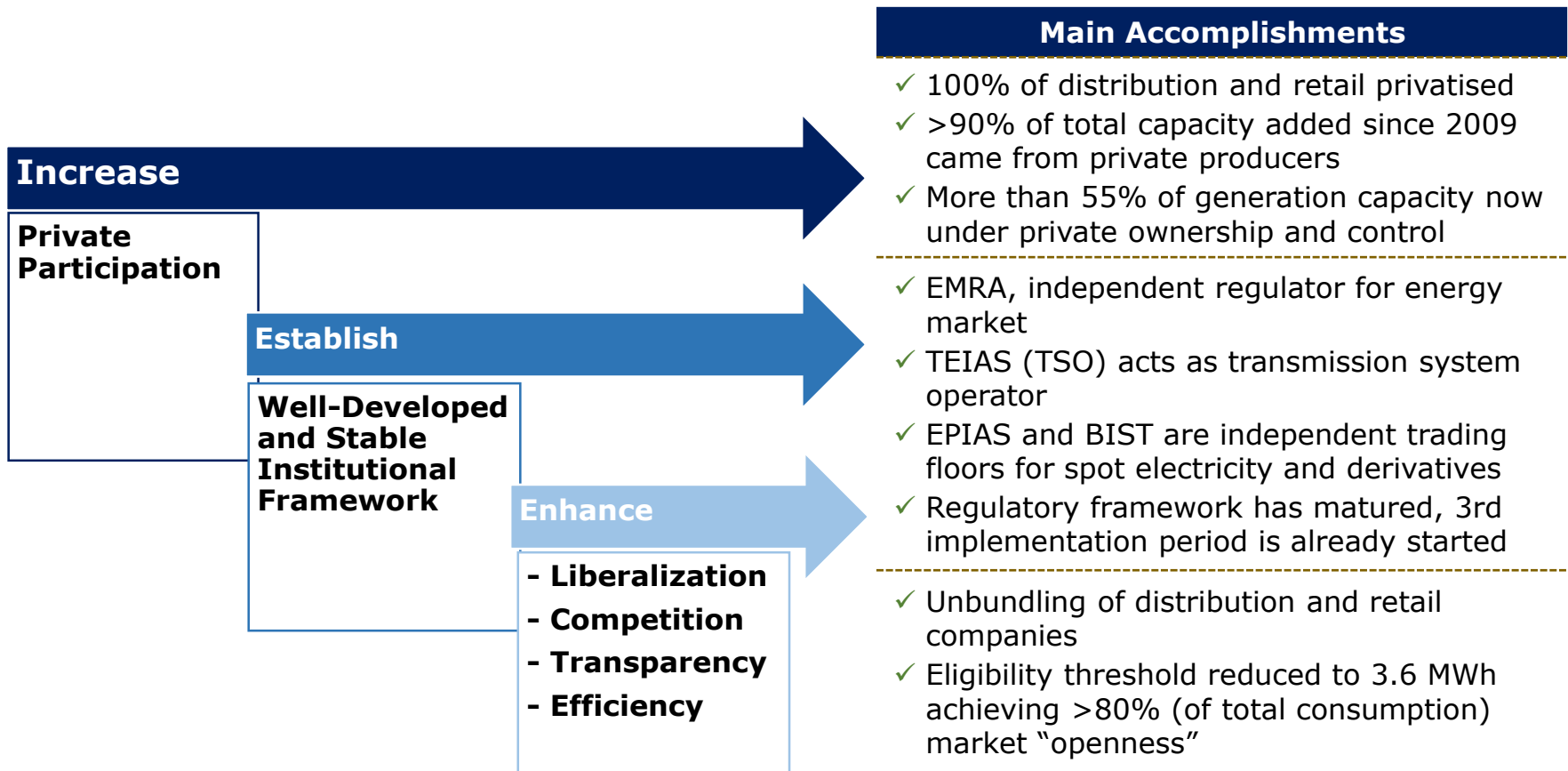
➤ Summary

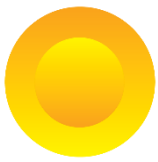
➤ Appendix



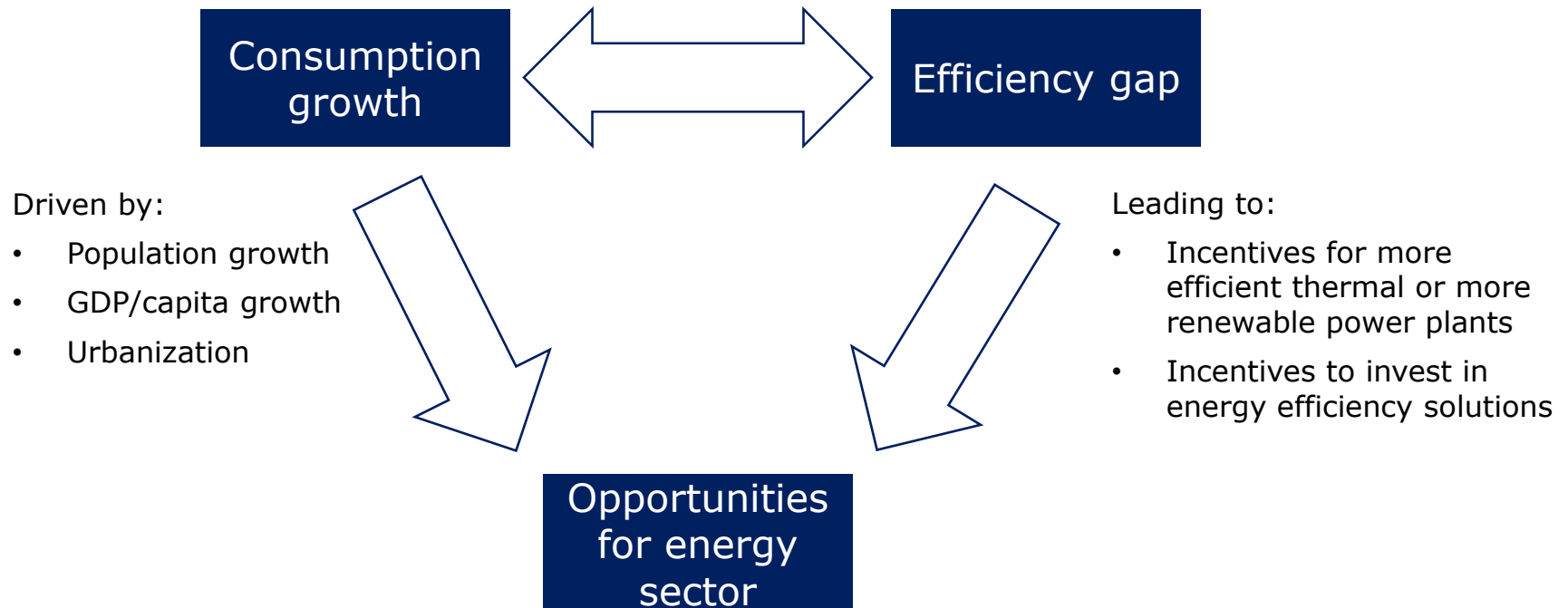
Turkey is Committed to Liberalization

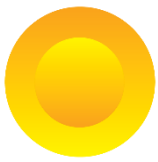
- Power market firmly set for competitive regime
- Implementation of a market-based utility sector framework





Significant Opportunities for Energy Sector





Issues are Dissipating as Market is Evolving

SHORT TERM

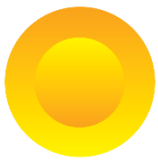
Hydrology	✓ Normalized
Natural Gas Subsidy	✓ Practically removed due to low oil prices
Generation Privatizations	✓ Continued as planned
Global Commodity Prices	? Recovery is expected in medium to long term
Establishment of EPIAS	✓ Fully operational

MID-TERM

New tariff period	✓ Improvement with a clear visibility of certain parameters for 5 years
Overcapacity leading depressed power prices	? Recovery is expected in medium term following the expiry of BO-BOT contracts
Liberalization	✓ Continued as planned

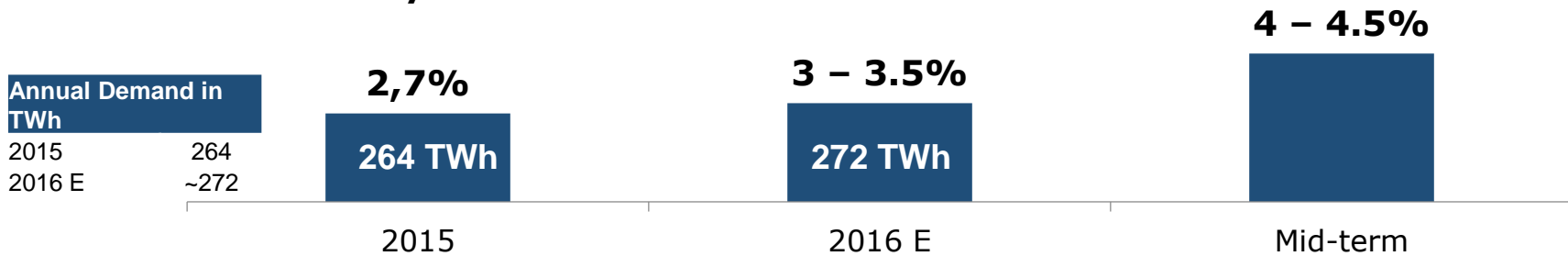
LONG TERM

Industry Transformation	✓ In progress
-------------------------	---------------

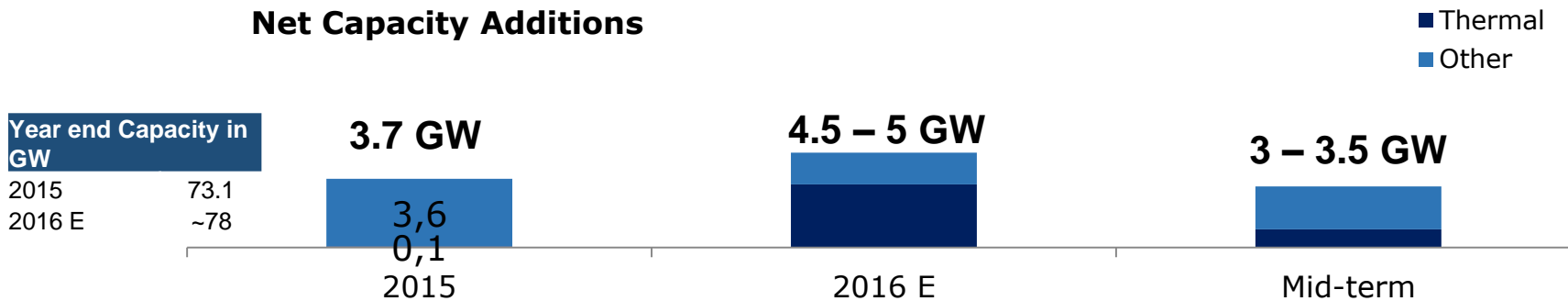


Price Upside depends on Demand Improvement

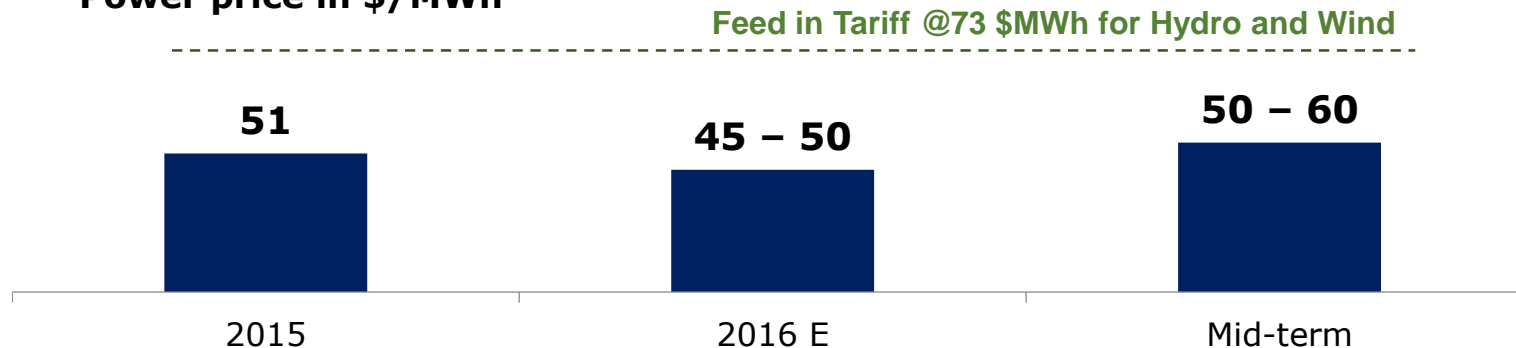
Electricity Demand Growth



Net Capacity Additions



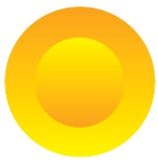
Power price in \$/MWh





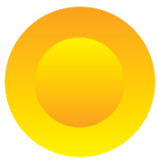
Continued Improvement of Distribution & Retail Market Expectations

	2015	Mid Term Expectations
DISTRIBUTION	<ul style="list-style-type: none">▪ Tariff parameters set for 2016-2020 period allowing more visibility for financials▪ Real WACC: Increased from 9.97% to 11.91%▪ OPEX allowance improved, CAPEX allowance improved significantly▪ Adjusted Theft and Loss targets.	<ul style="list-style-type: none">▪ Companies focus on operational excellence to outperform regulatory targets▪ Additional income through service differentiation and new products/ services (e.g. consulting).▪ Additional income from advertising and rental incomes.
RETAIL	<ul style="list-style-type: none">▪ Tariff parameters set for regulated market allowing improvement in financial performance▪ Liberalisation to continue in-line with expectations	<ul style="list-style-type: none">▪ Full market opening in 2017-2018 period, eligibility limit to become «zero»▪ BO-BOT contracts to be expired and market liquidity will increase▪ Companies focus on establishing systems/processes, branding and value added products/services



Content

- Turkish Electricity Market
- **Enerjisa Company Profile**
- Strategic Priorities and Competitive Advantages
- Distribution & Retail Regions
- Distribution Business Update
- Retail Business Update
- Generation Business Update
- Financials in Detail
- Summary
- Appendix



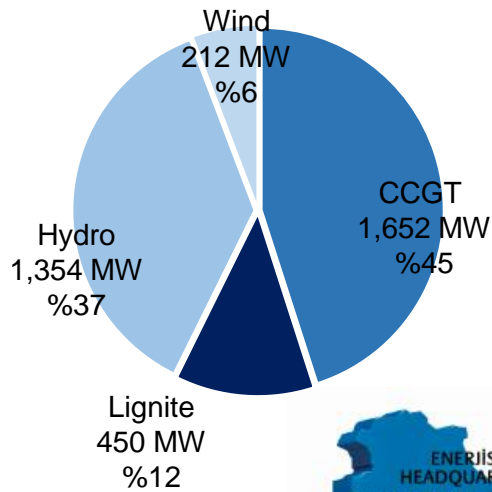
Market Leader in Turkey

Leading private power generator in Turkey with 3.7 GW operational capacity by year-end 2016

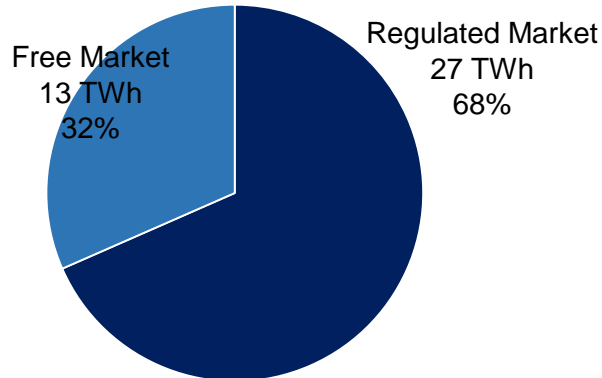
Leading power retailer in Turkey with 40 TWh sales to c. 8m customers, corresp. ~25% market share

Leading distribution network operator with 200.000 km network operations and TL 2.6 bln regulatory asset base

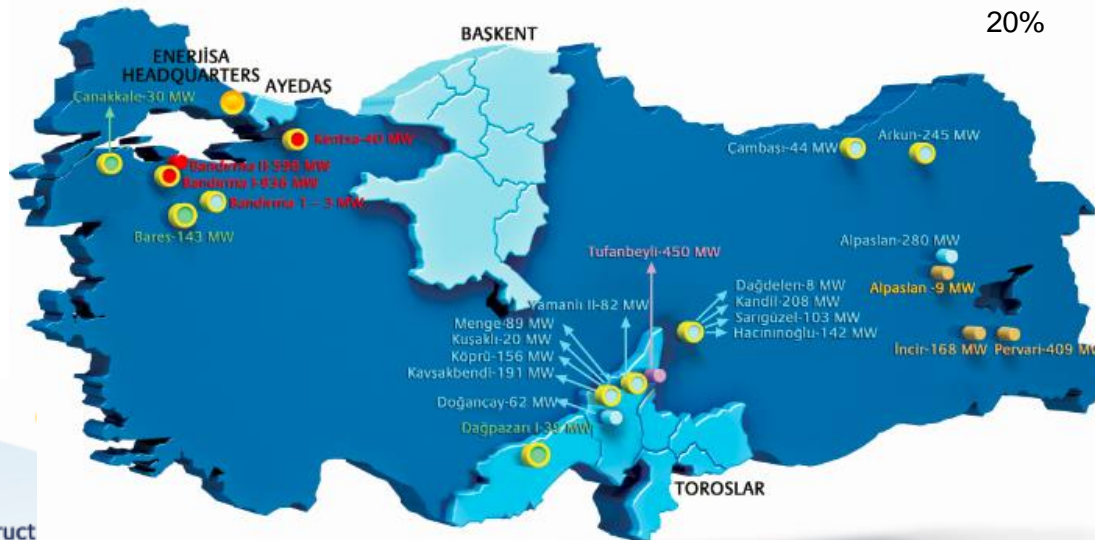
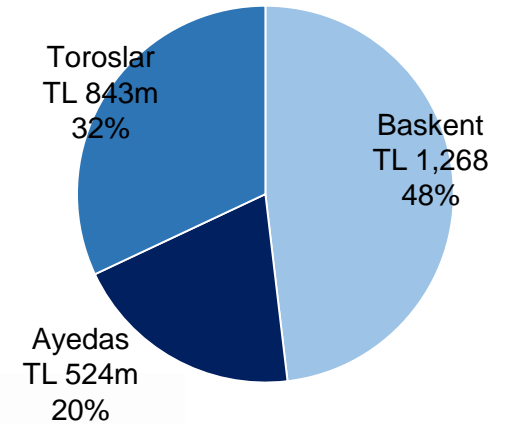
2016 GENERATION CAPACITY



2015 SALES MIX

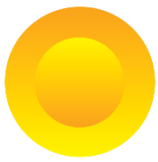


RAB BASE @ DEC'15

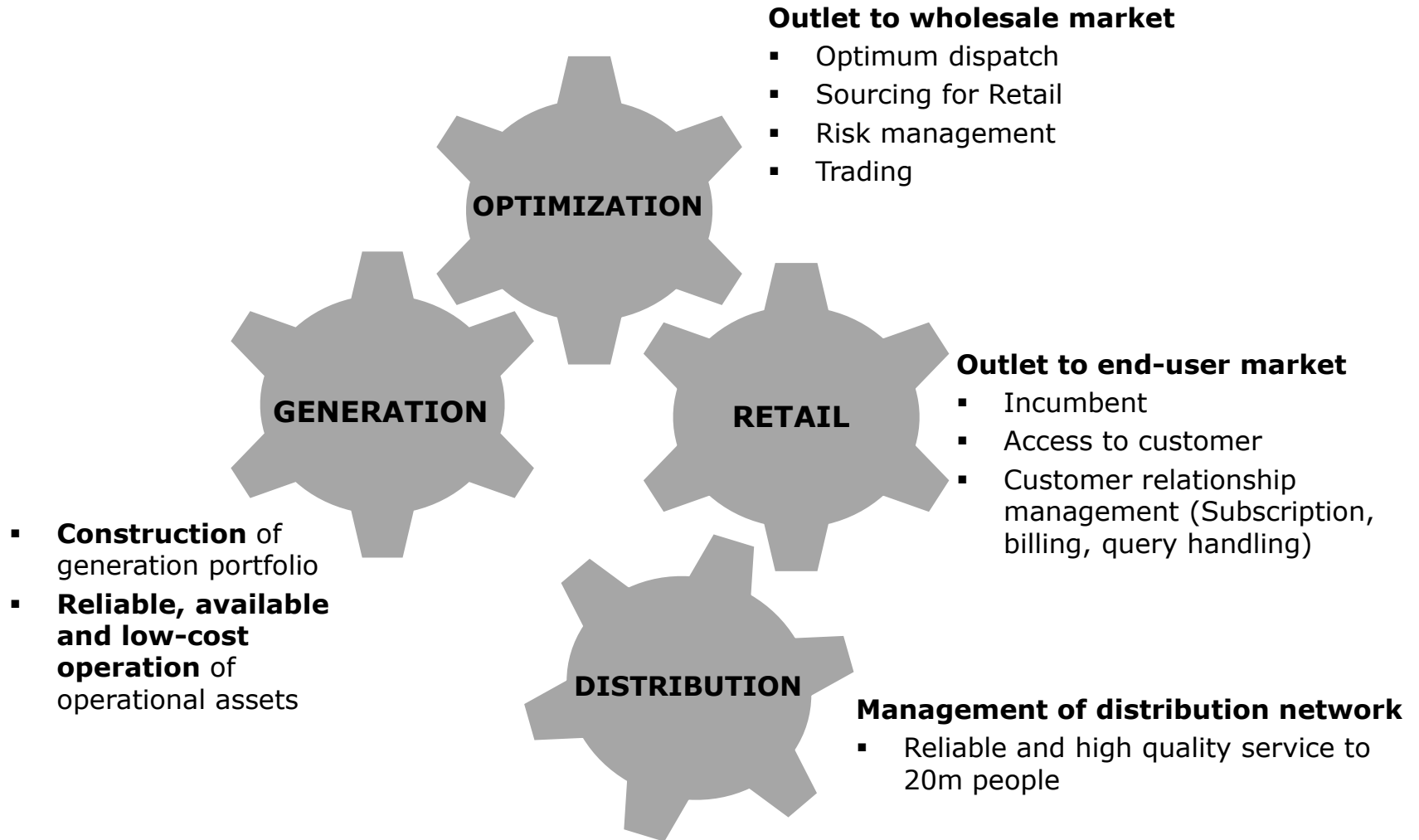


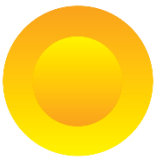
- WPP in operation
- HEPP in operation
- HEPP under construction
- Project license obtained

- CCGT in operation
- CCGT under construction
- CFPP under construction
- Solar Power Plant under construct



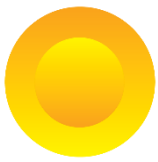
Diversified Across the Value Chain



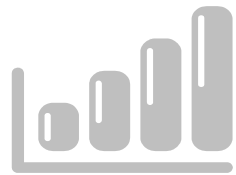


Content

- Turkish Electricity Market
- Enerjisa Company Profile
- **Strategic Priorities and Competitive Advantages**
- Distribution & Retail Regions
- Distribution Business Update
- Retail Business Update
- Generation Business Update
- Financials in Detail
- Summary
- Appendix



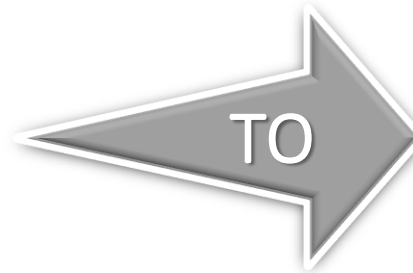
Focus on Value



VOLUME



FROM START-UP
COMPANY MINDSET

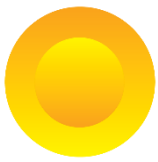


VALUE



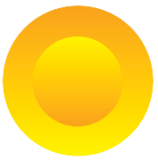
OPERATIONAL
EXCELLENCE

Strategic Priorities		Delivery
Complete generation projects under construction	✓	All projects under construction will be operational by 2016
Deleveraging and dynamic portfolio management	✓	Non-core 80MW RoR portfolio has been divested in 2015 Other options under review
Develop future seeds for growth in focus areas; distribution & retail, renewables and distributed generation	✓ ✓	Project development for WPP and PV potential Established distributed generation business to position for energy transformation
Continue integration of new regions and focus on market liberalization and new regulation	✓ ✓	Ayedas and Toroslar integration successfully completed Enerjisa Brand has been launched
Emphasize operational excellence in all areas	✓	Optimized controllable costs and focused on profitability



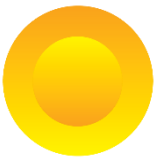
Competitive Advantage Across Business Lines

	Drivers	Key Success Factors	EnerjiSA's Competitive Advantage
Generation	<ul style="list-style-type: none">▪ Capex▪ Cost of running plants▪ Availability	<ul style="list-style-type: none">▪ Construction and project management skills▪ Operational efficiency▪ Dispatching▪ Best in class trading	<ul style="list-style-type: none">▪ Diversified generation portfolio with lowest operational cost in each asset class▪ Dispatch and trading know-how transferred from E.ON
Distribution	<ul style="list-style-type: none">▪ Regulated return vs. financing costs▪ Performance compared to regulatory targets	<ul style="list-style-type: none">▪ Operational efficiency▪ Regulatory management▪ Focus on technology	<ul style="list-style-type: none">▪ Potential to benefit from lower cost of debt thanks to quality of its sponsors▪ Economies of scale▪ Long lasting operational experience with Baskent
Retail	<ul style="list-style-type: none">▪ Sourcing cost▪ Cost to serve/ retain/ acquire▪ Market share and gross margin	<ul style="list-style-type: none">▪ Market and customer information▪ Relations with customers and regulatory institution▪ Marketing skills and brand management▪ Product and service development▪ Cost controlling and pricing	<ul style="list-style-type: none">▪ Well-known trusted brand▪ Large incumbent base (8m)▪ Economies of scale▪ Know-how transfer from Sabanci & E.ON



Content

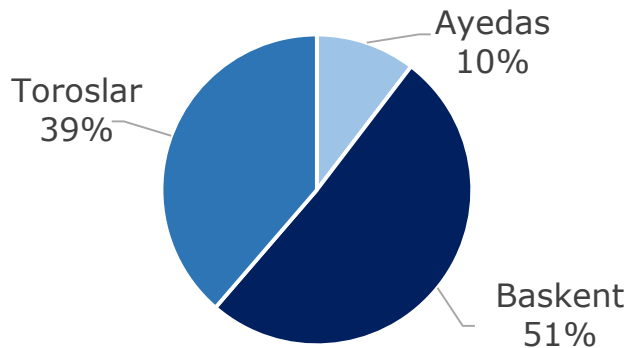
- Turkish Electricity Market
- Enerjisa Company Profile
- Strategic Priorities and Competitive Advantages
- **Distribution & Retail Regions**
- Distribution Business Update
- Retail Business Update
- Generation Business Update
- Financials in Detail
- Summary
- Appendix



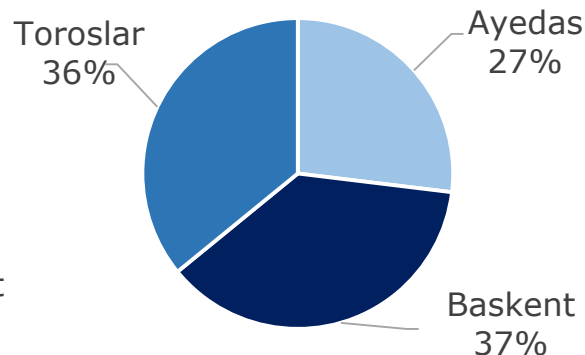
Positioned for Growth in Distribution & Retail



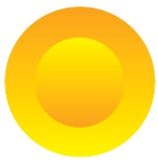
Network length >200.000 km



Number of active customers ~8m

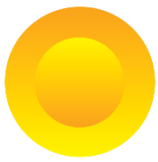


- Size
- Population density (25% of Turkish population)
- Incumbent in all regions
- Centers of economic activity
- Highly regulated



Content

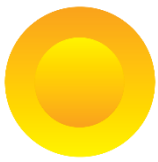
- Turkish Electricity Market
- Enerjisa Company Profile
- Strategic Priorities and Competitive Advantages
- Distribution & Retail Regions
- **Distribution Business Update**
- Retail Business Update
- Generation Business Update
- Financials in Detail
- Summary
- Appendix



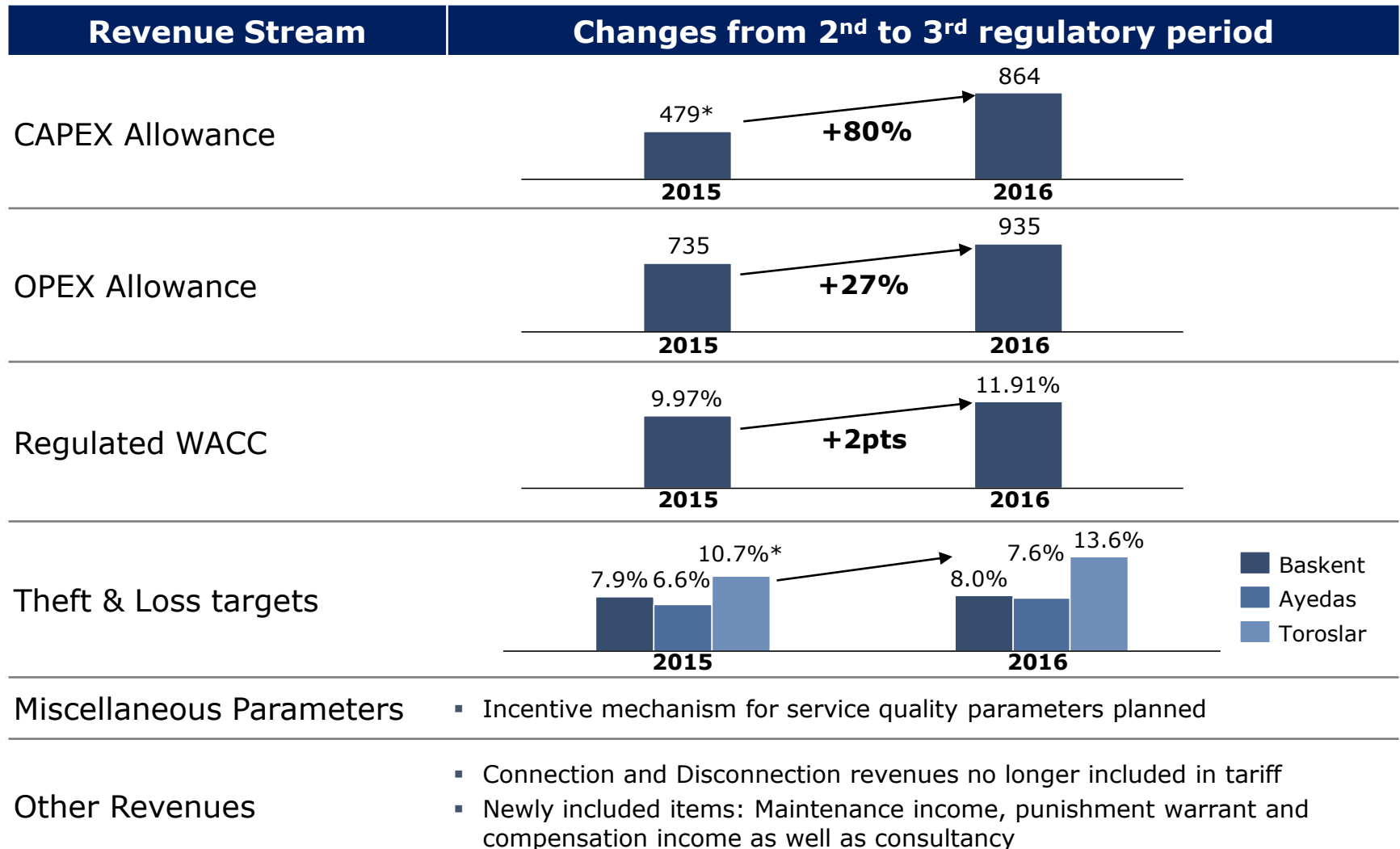
Regulation Awards Performance

Value Driver	Mechanism	Allowed Metrics
Capex allowance and regulatory return (WACC+Inflation)	<p>Investment Reimbursement WACC (11.91%)</p> <p>*All reimbursement and WACC amounts are adjusted for inflation.</p> <p>Y-1 Y-2 Y-3 Y-4 Y-5 Y-6 Y-7 Y-8 Y-9 Y-10</p>	Allowance 2016: 864 mTL*
Opex efficiency	<p>Allowed Opex Realized Opex Opex efficiency</p>	Allowance 2016: 935 mTL*
Theft & Loss Outperformance	<p>Theft&Loss Target Realized Theft&Loss Theft&Loss Outperformance</p>	Allowed T&L 2016: Başkent: 8.00% Ayedaş: 7.61% Toroslar: 13.59%
Operational Services and Other Income	e.g. rentals and advertisements	

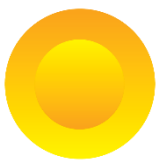
* Figures reflect 2015 PP.



Regulatory Framework has Improved Significantly



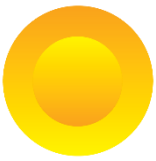
* Normalized to 2nd regulatory period



Opportunities for Future Growth

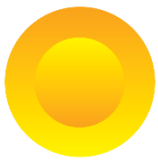
Revenue Stream	Growth opportunities
CAPEX	<ul style="list-style-type: none">▪ RAB as base of regulatory return is increasing from 2.6bnTL* in 2015 to an expected ~4bnTL* (nominal 5.5bnTL) in 2020 contributing ~60-70% of EBITDA▪ Network expansion due to increasing rate of urbanization▪ Economies of scale to achieve lower procurement costs▪ Financially strong shareholders – potential for lower cost of debt
OPEX	<p>Room to outperform in controllable expenses through;</p> <ul style="list-style-type: none">▪ Centralized organization and economies of scale▪ Continuous process improvement▪ Organizational restructuring▪ IT infrastructure
Theft & Loss	<ul style="list-style-type: none">▪ Cost/impact analysis for grid loss▪ Increasing efforts for reducing theft usage▪ Incentive-based T&L management
Other Income	<ul style="list-style-type: none">▪ Consultancy income potential by highly specialized experts▪ Service differentiation and new products to customers▪ High potential for advertisement and rental income especially in Ayedaş and Başkent.

* Figures reflect 2015 PP.

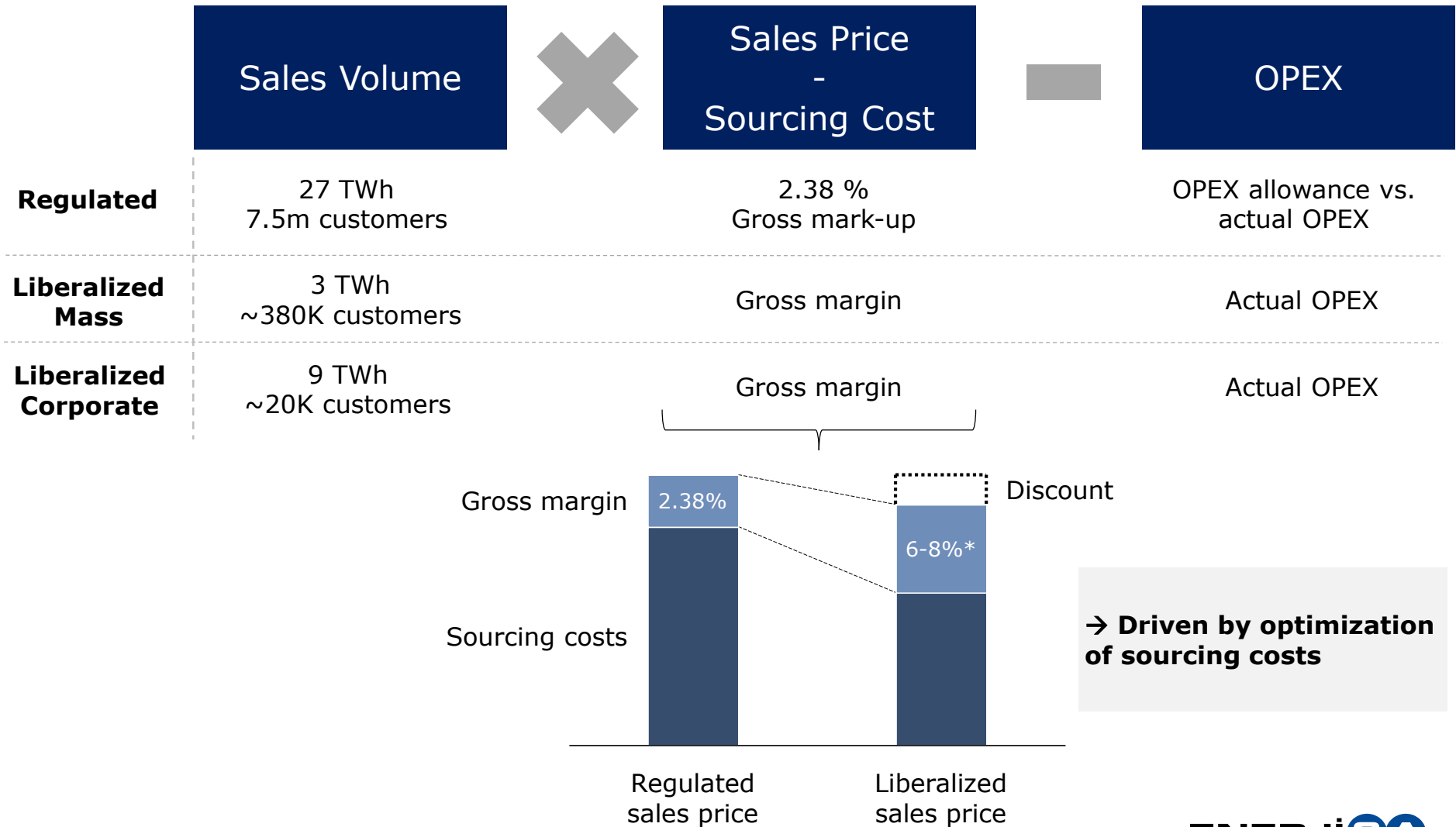


Content

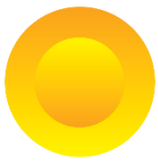
- Turkish Electricity Market
- Enerjisa Company Profile
- Strategic Priorities and Competitive Advantages
- Distribution & Retail Regions
- Distribution Business Update
- **Retail Business Update**
- Generation Business Update
- Financials in Detail
- Summary
- Appendix



Liberalized Market more Profitable

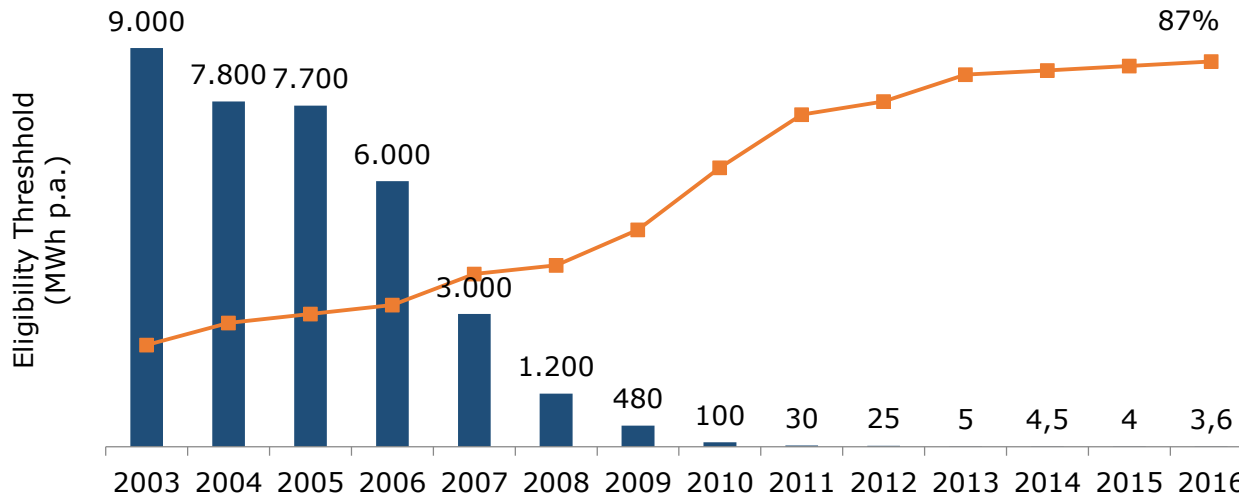


* Weighted average across all segments.



Regulation Supports Growth of Liberalized Market

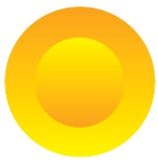
The Liberalization Path



- Market openess of **~90%** by 2016 in terms of volumes reached
- Remaining **10%** account for **90%** of residential customers to become eligible in 2017-2018 period

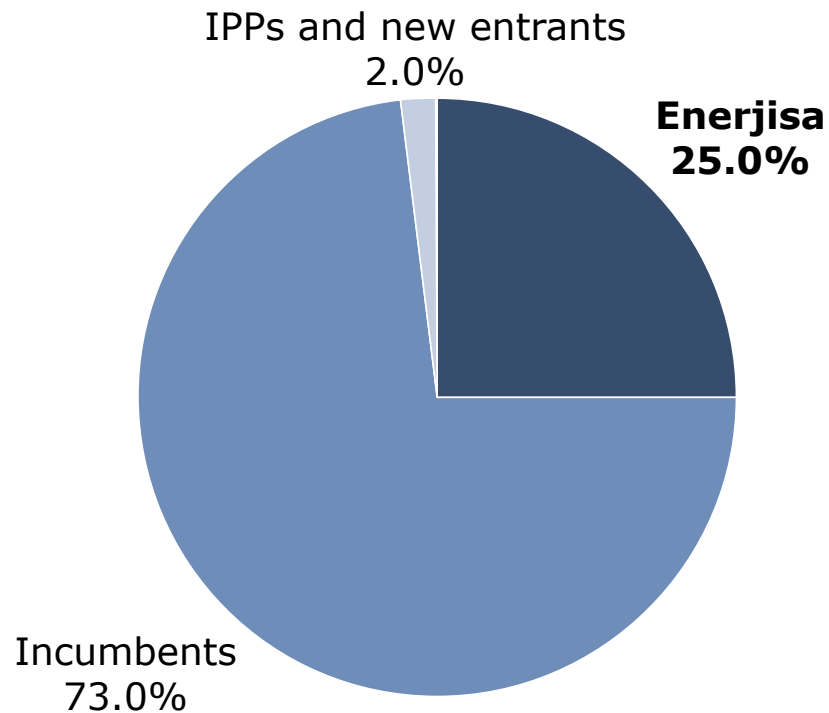
Wholesale Market Liberalization

- Liberalization on the customer side is expected to be matched on the procurement side with electricity purchases from state-owned wholesale company to decline
- Liquidity in the market expected to increase



Best Placed to Capitalize on Market Liberalization

**Turkish electricity retail market of
~30m active customers**



Key competitive advantages:

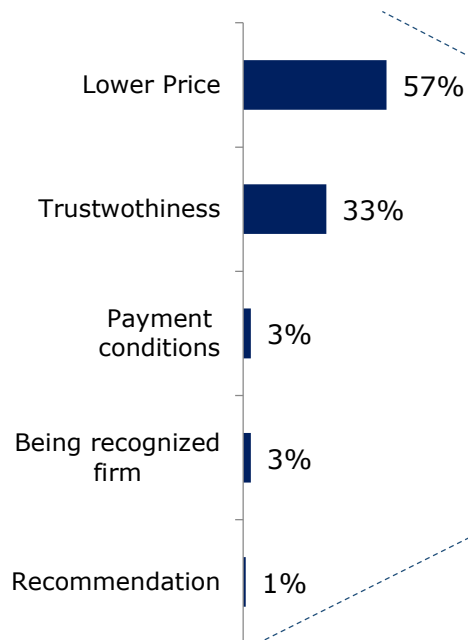
1. Team
2. Brand
3. Infrastructure
4. Shareholders



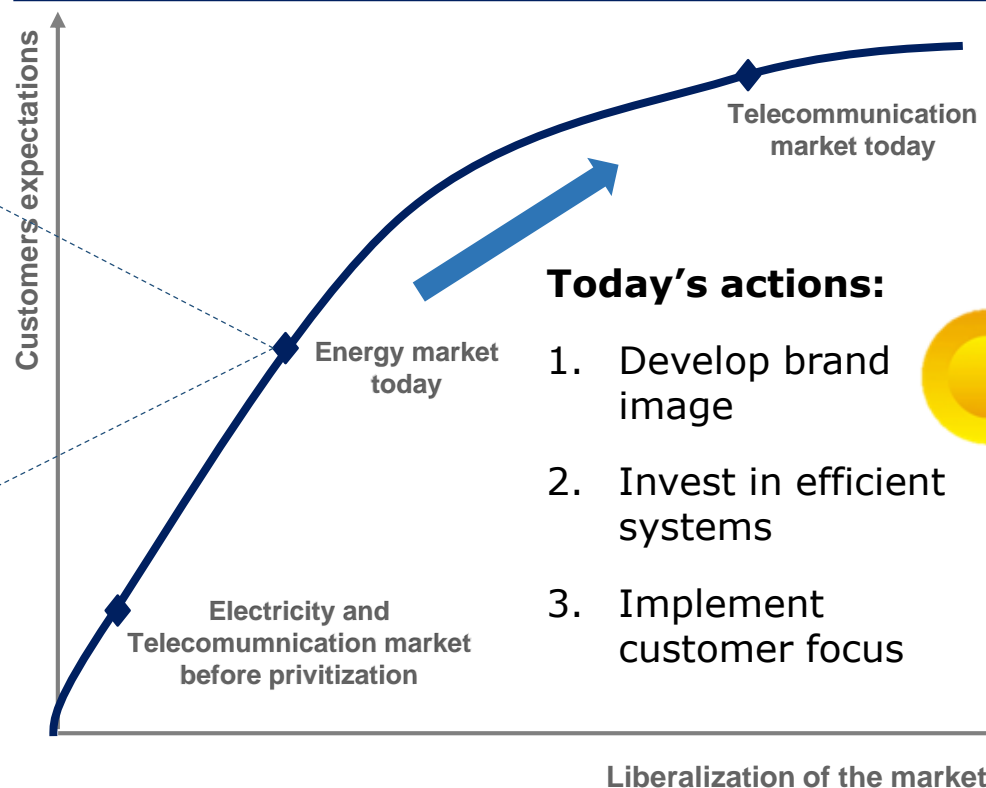
Future Proofing our Business

→ We understand customer expectations and take actions today in order to meet higher future expectations

Today's customer expectations from energy companies



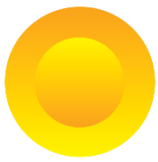
Development of customer expectations



Today's actions:

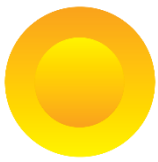
1. Develop brand image
2. Invest in efficient systems
3. Implement customer focus





Content

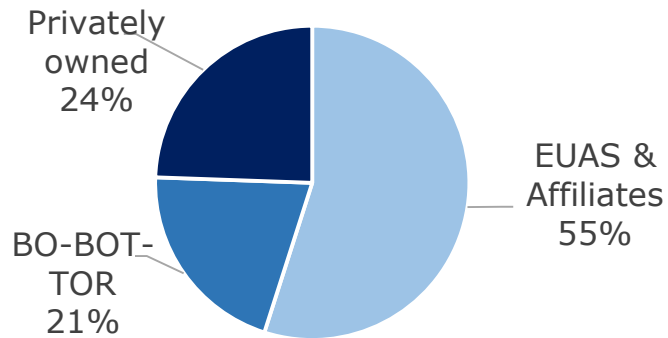
- Turkish Electricity Market
- Enerjisa Company Profile
- Strategic Priorities and Competitive Advantages
- Distribution & Retail Regions
- Distribution Business Update
- Retail Business Update
- **Generation Business Update**
- Financials in Detail
- Summary
- Appendix



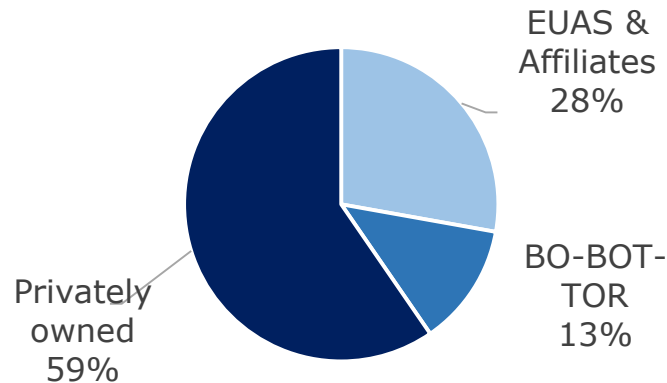
Balanced Portfolio in an Increasingly Private Market

→ Private market share increasing

Total installed capacity 2009: 44.6 GW

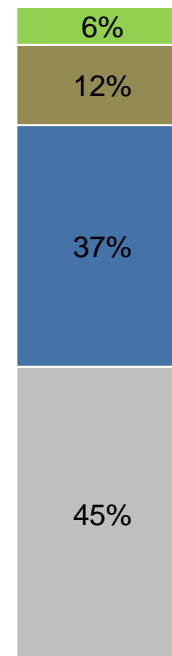


Total installed capacity 2015: 73.2 GW



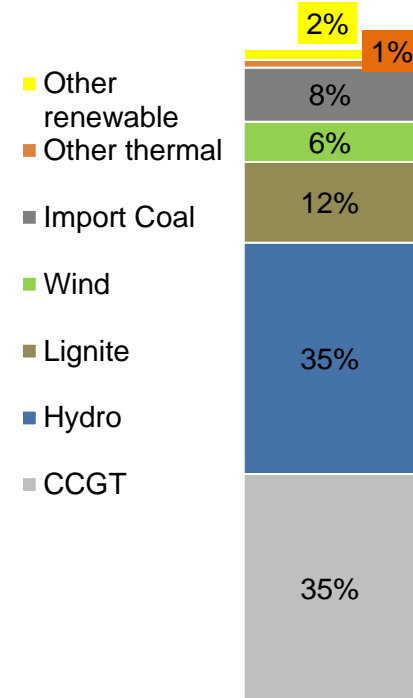
→ Balanced generation portfolio

3.7 GW

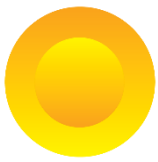


ENERJISA

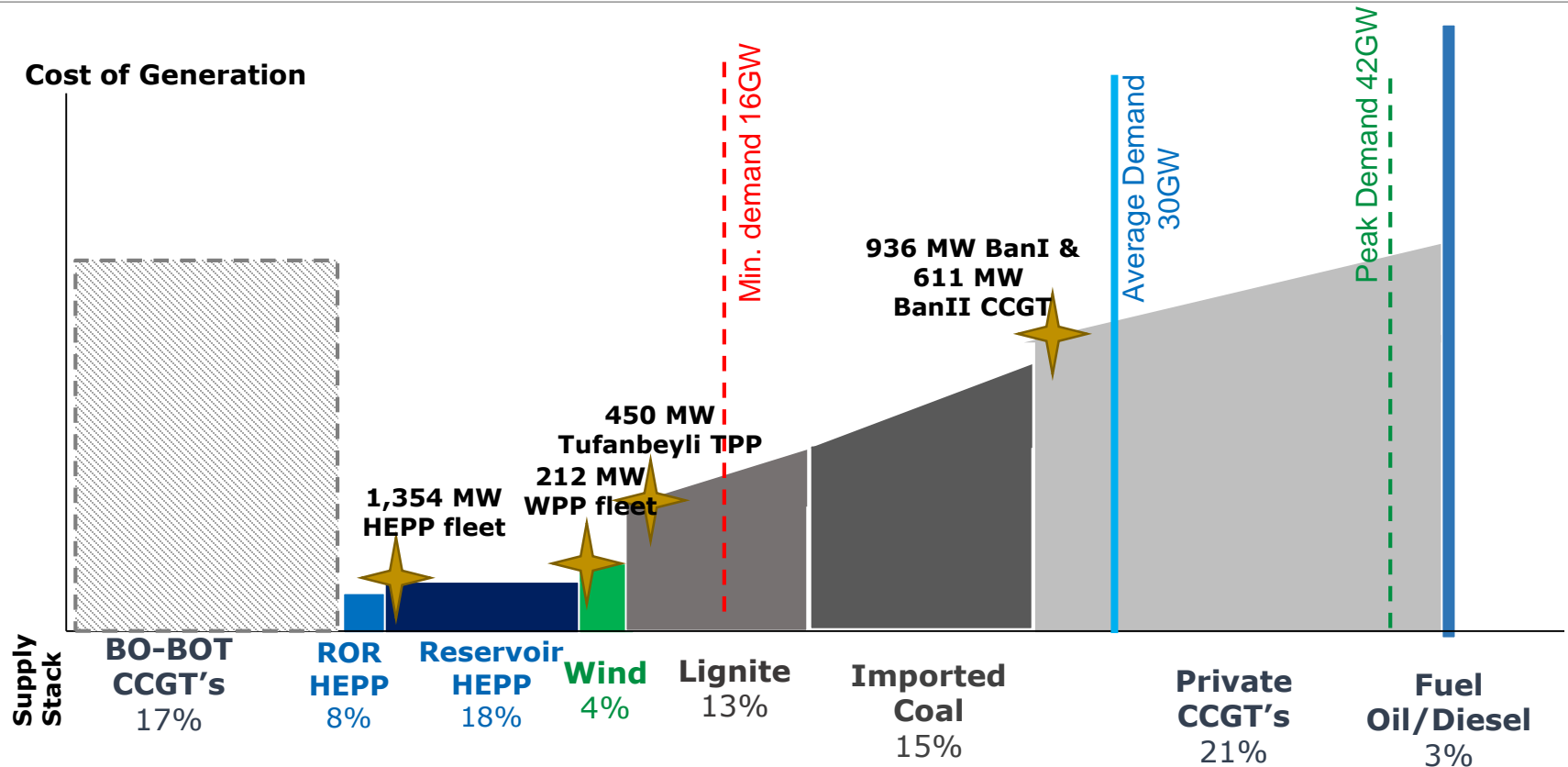
73.1 GW



TURKEY

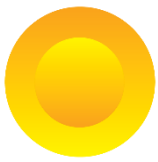


High Efficiency Leads to Cost Competitiveness

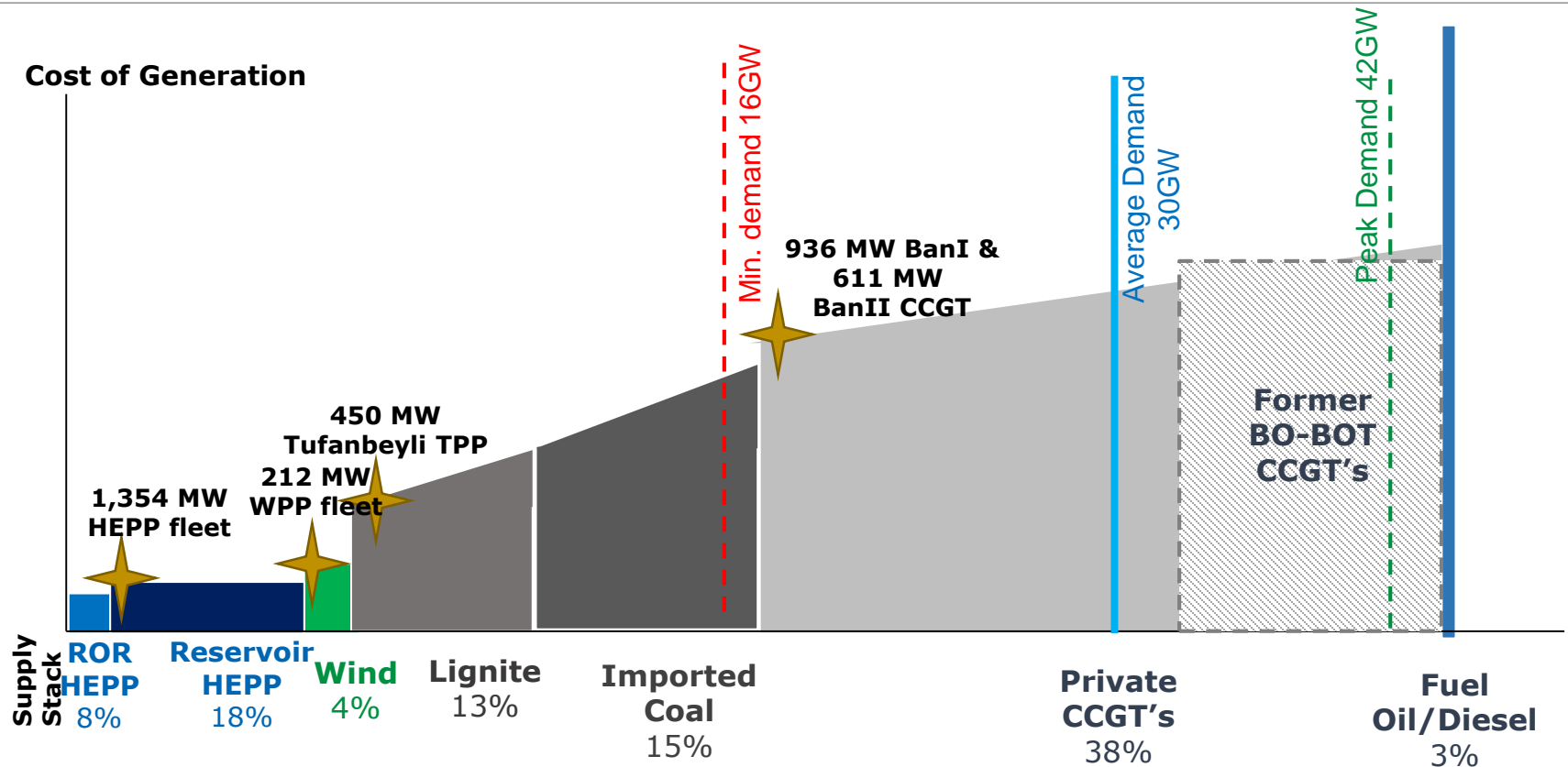


Merit order in Turkish market is characterized by:

- **Mandatory purchase contracts with** BO & BOT type power plants will expire by 2018-2019 horizon and will lead increase in spot market power prices
- **CCGT's still determine majority of hours.** Thus, gas prices (driven by oil prices) is major determinant of power prices in medium to long term

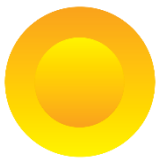


State-owned Capacity Shifting to Private Leads to Higher Prices



Merit order in Turkish market is characterized by:

- **Mandatory purchase contracts with** BO & BOT type power plants will expire by 2018-2019 horizon and will lead increase in spot market power prices
- **CCGT's still determine majority of hours.** Thus, gas prices (driven by oil prices) is major determinant of power prices in medium to long term

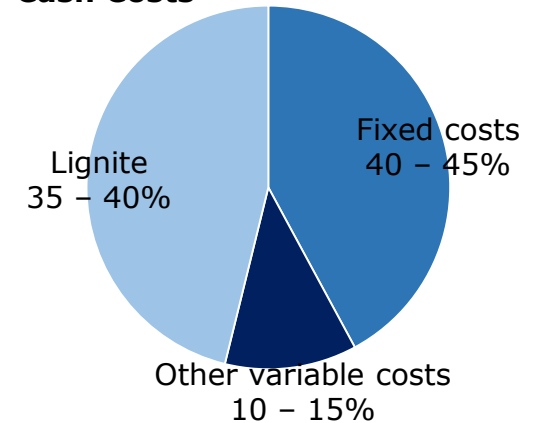


Major additions completed in 2016

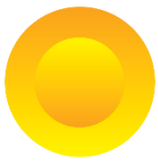
Tufanbeyli lignite plant – lowest cost of generation



Breakdown of Tufanbeyli Cash Costs



COD for full capacity	Q1 2016
Capacity	450 MW (3 x 150 MW)
Net efficiency	34.2 %
Technology	Circulating Fluidized Bed (CFB), HHI Boilers, Siemens Steam Turbine, Siemens Generator
EBITDA margin	45-55%
Generation	2,750 GWh per annum
Coal consumption	6 mln tonnes per annum
Coal reserve	220 mln tonnes
Coal calorific value	1200 kcal/kg
Coal cost	5 – 6 \$/ton

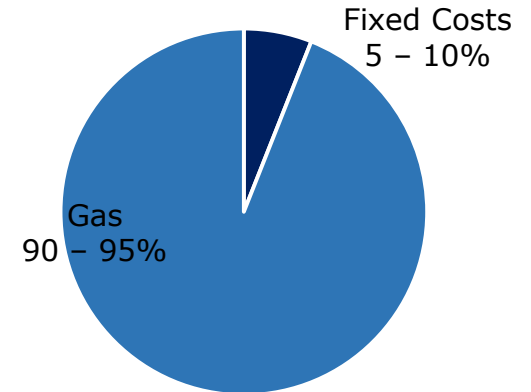


Major additions completed in 2016

Bandırma gas plant – highest efficiency

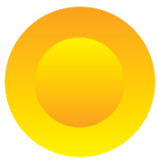


Breakdown of Bandırma II Cash Costs



COD for full capacity	Q2 2016
Capacity	611 MW
Net efficiency	>60 %*
Technology	Siemens SGT5-8000H Gas Turbine, Siemens Steam Turbine, NEM HRSG
Start Durations	30 minute hot start with 1+1 Higher EBITDA generation capability through dispatching flexibility
Ramp rate	36 MW/min
Maintenance	LTSA with Siemens (for two terms, in total for 14 years)

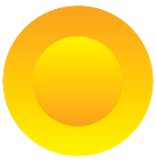
* gas consumption is calculated as $860/\text{efficiency}/8250$ (calorific value of NG).



Major additions completed in 2016 Yamanlı and Dogancay hydro plants

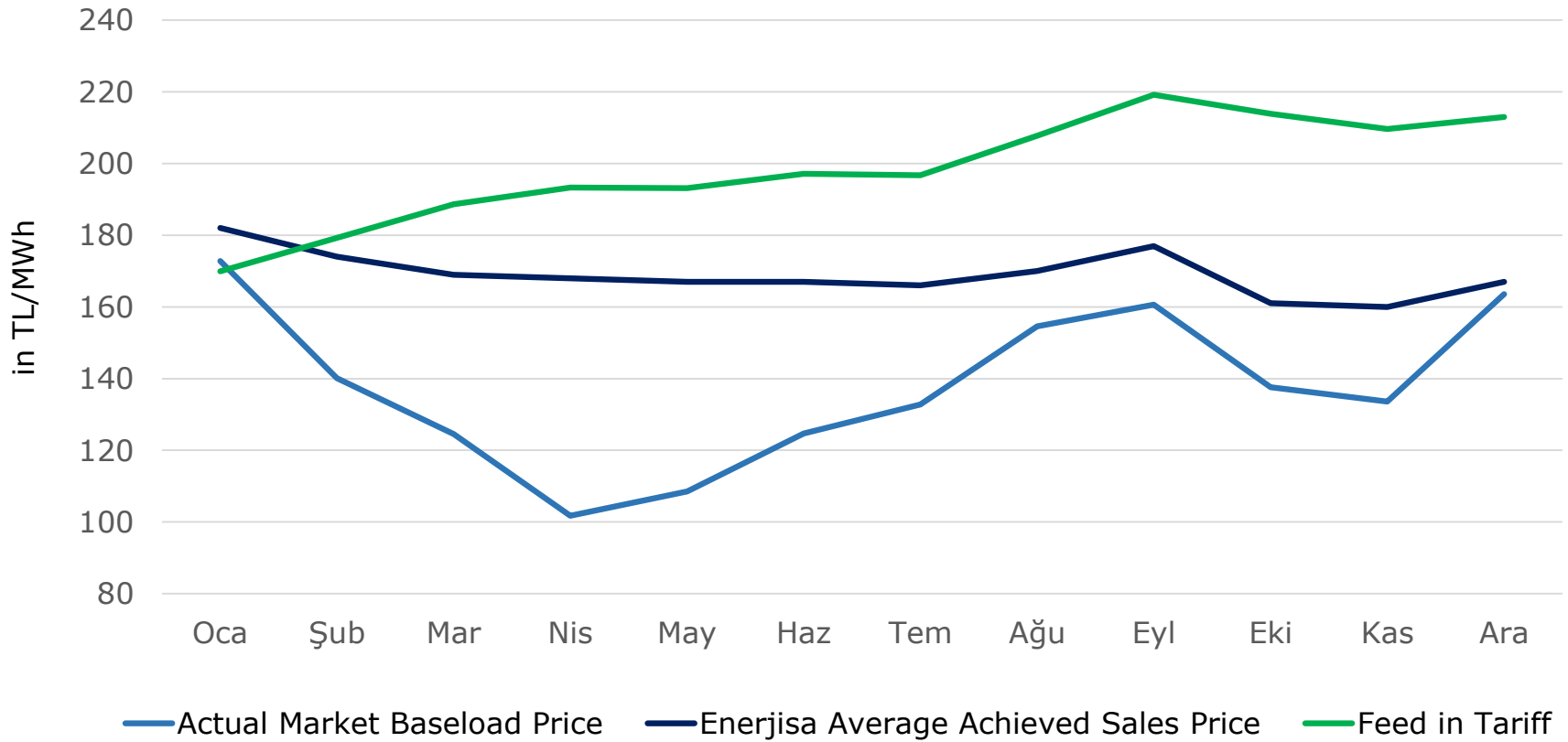


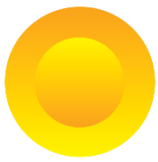
	YAMANLI HEPP	DOGANCAI HEPP
COD for full capacity	Q1 2016	Q3 2016
Type	RoR(1 st stage) & Reservoir (2 nd stage)	RoR
Capacity	82 MW	62 MW
Estimated generation	234 GWh per annum	157 GWh per annum
E&M provider	ABB-Yunhe	Orient&ENERDEN
EBITDA margin	70-80% (in feed in tariff)	



Hedging and Dispatching Optimization Deliver further Outperformance

Enerjisa Average Achieved Sales Price Performance 2015

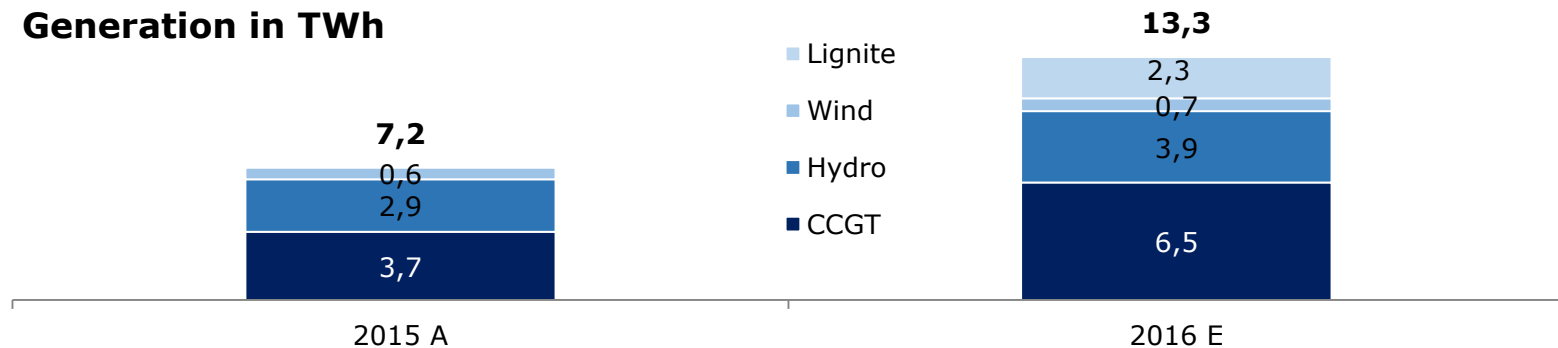




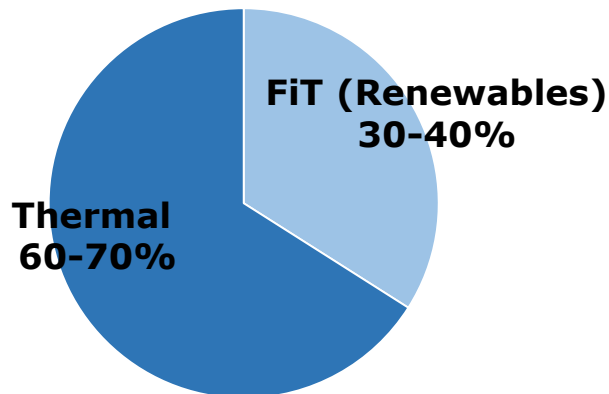
Profitability is Driven by Feed in Tariff in 2016

- Feed in tariff allows EnerjiSA to avoid impact of low spot prices for renewable portfolio now and in the mid-term
- Full generation capacity as of 2016 offers future growth potential once prices recover

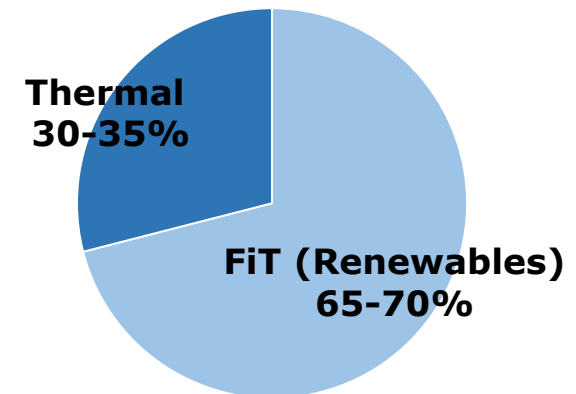
Generation in TWh

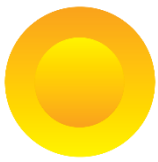


2016 Generation Contribution



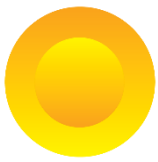
2016 EBITDA Contribution





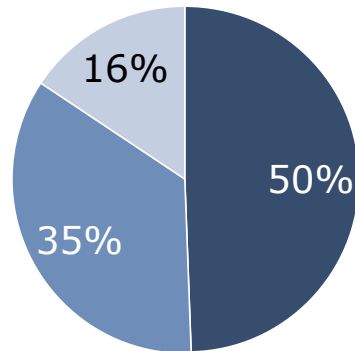
Content

- Turkish Electricity Market
- Enerjisa Company Profile
- Strategic Priorities and Competitive Advantages
- Distribution & Retail Regions
- Distribution Business Update
- Retail Business Update
- Generation Business Update
- **Financials in Detail**
- Summary
- Appendix

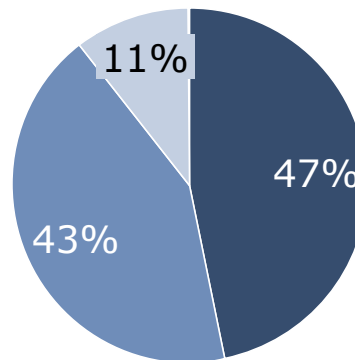


Higher Visibility with Lower Risk

2015 EBITDA* (1,6 bnTL)



2016 EBITDA (↑)



■ Generation
■ Distribution
■ Retail

(*) Adjusted for one-offs

● Generation drivers

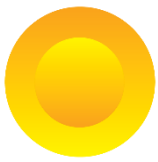
- 42% of generation capacity 2016 opted for feed in tariff (73 USD/MWh applicable to 4,5 TWh) leading to no price exposure other than FX
- Remaining gas and lignite capacity mostly hedged, leaving mainly volume risk for 2016

● Distribution drivers

- Regulated business
- Inflation adjusted WACC on regulated asset base
- Outperformance of OPEX ceiling
- Outperformance of T&L target rates

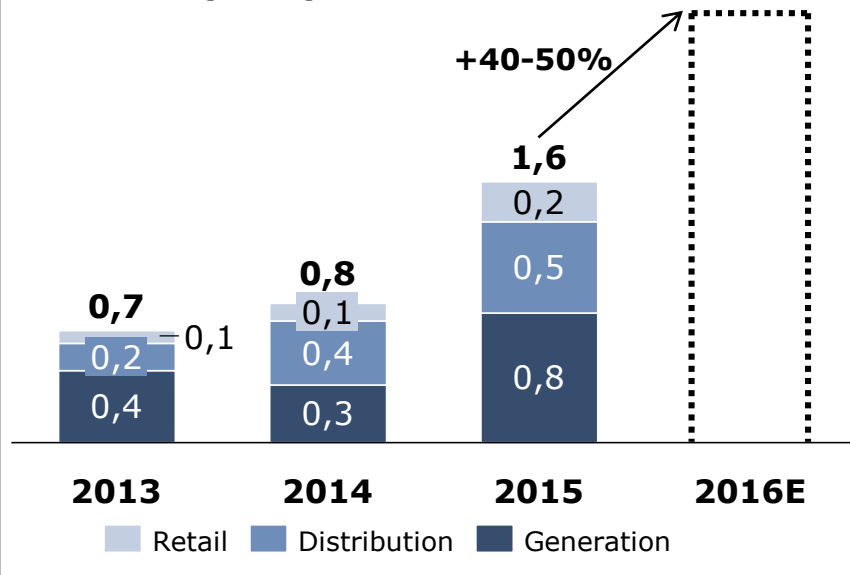
● Retail drivers

- Partially liberalised
- Market and regulatory application for pass-through costs
- Procurement costs in liberalized market
- Eligibility limit and switching
- Volume and market share
- Collection performance

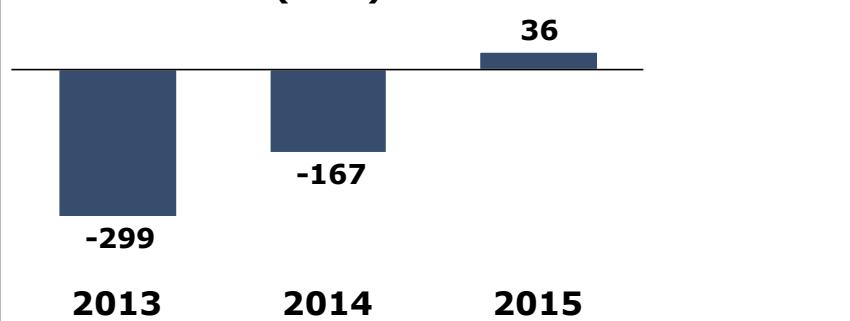


Significant Improvement in EBITDA

EBITDA* (bnTL)



Net Income* (mTL)



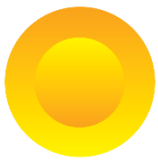
EBITDA Development 2015 vs 2014

- Generation & Trading: Higher EBITDA driven by higher renewable generation and benefit of hedges together with feed in tariff offsetting decreasing market prices
- Distribution: Higher EBITDA due to higher financial income mainly driven by increased regulatory asset base and improved T&L outperformance
- Retail: Higher EBITDA due to higher collection performance and higher free market sales contribution

EBITDA Outlook 2016

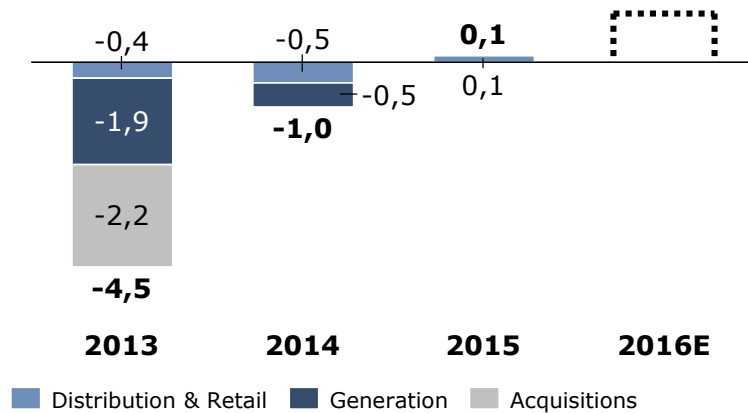
- Generation & Trading: Newly commissioned plants and higher renewable volume enjoying FiT
- Distribution: Higher regulated WACC and regulated asset base along with increased distribution ceiling
- Retail: Higher contribution of liberalized market

(*) Adjusted for one-offs

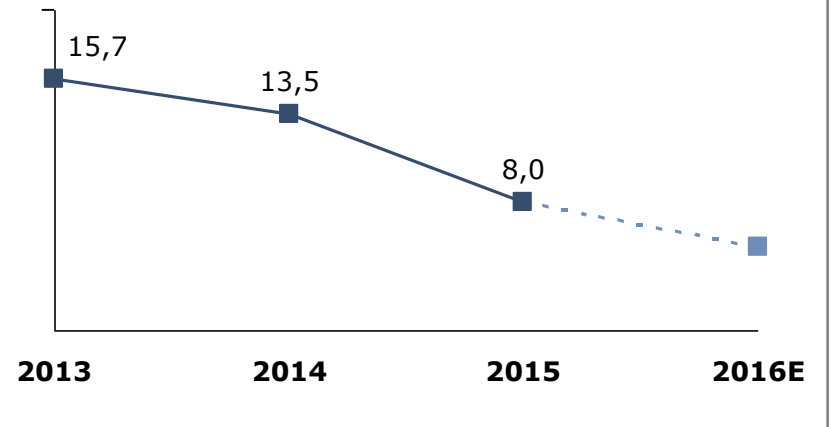


Business has Turned Cash Positive

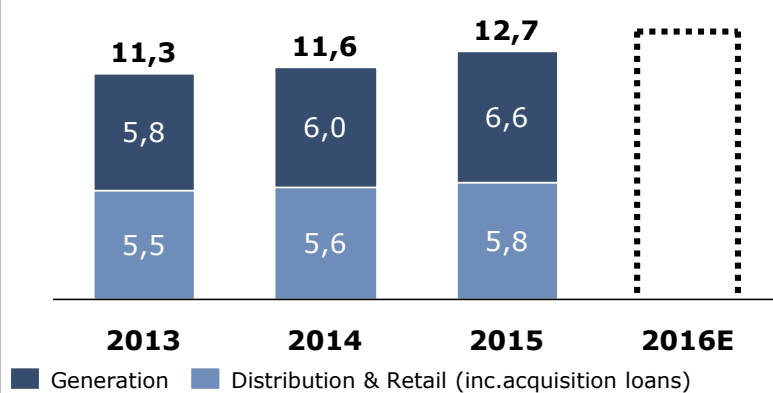
Free Cash Flow (bnTL)



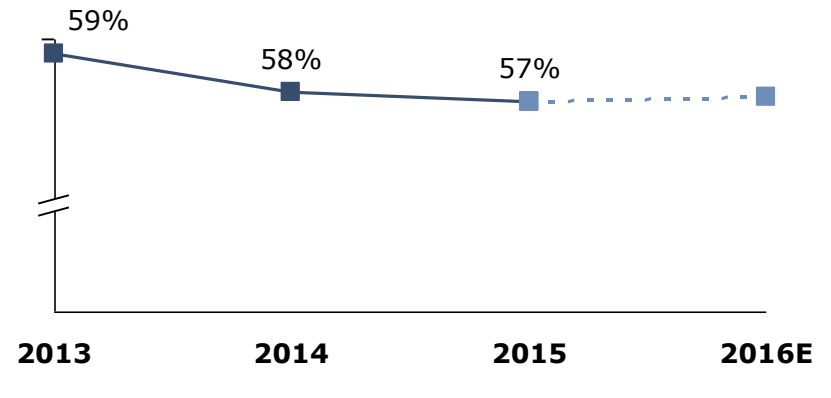
Net Debt/EBITDA*



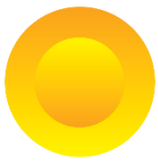
Gross Debt (bnTL)



Debt/Equity

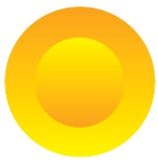


(*) Adjusted for one-offs



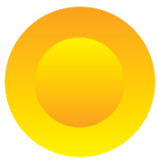
Content

- Turkish Electricity Market
- Enerjisa Company Profile
- Strategic Priorities and Competitive Advantages
- Distribution & Retail Regions
- Distribution Business Update
- Retail Business Update
- Generation Business Update
- Financials in Detail
- **Summary**
- Appendix



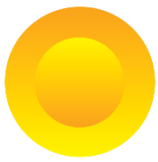
Summary

- Turkey is committed to liberalization, providing significant opportunities for Energy sector
- High expectations for distribution and retail market, while generation market requires a more balanced supply and demand situation
- Enerjisa is market leader in Turkey offering diversification across the value chain
- Enerjisa's growth focus is on distribution and retail business as well as renewables
- Financial risk will be reduced via deleveraging (incl. portfolio management)
- Earnings growth expected to continue, supported by increasing cash generation



Content

- Turkish Electricity Market
- Enerjisa Company Profile
- Strategic Priorities and Competitive Advantages
- Distribution & Retail Regions
- Distribution Business Update
- Retail Business Update
- Generation Business Update
- Financials in Detail
- Summary
- **Appendix**



Abbreviations

EMRA	Energy Market Regulatory Agency
TEIAS	State Transmission Company
TSO	Transmission Service Operator
EPIAS	Energy Market Operator
BIST	Istanbul Stock Exchange
GDP	Gross Domestic Product
BO-BOT-TOR	Build Operate – Build Operate Transfer – Transfer of Operating Rights
WACC	Weighted Average Cost of Capital
PP	Purchasing Power
CCGT	Combined Cycle Gas Turbine
WPP	Wind Power Plant
HEPP	Hydro Electrical Power Plant
CFPP	Coal Fired Power Plant
TPP	Thermal Power Plant
RAB	Regulated Asset Base
RoR	Run of River
T&L	Theft & Loss
IPP	Independent Power Provider
EUAS	State Electricity Generation Company
CoD	Commissioning Date
FiT	Feed in Tariff