



Sustainability of Investments in the Turkish Power & Gas Industry

Batu AKSOY

Chairman, Energy Traders Association (ETD)

EIF Conference

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Outline

- ETD In General
- Diversification in power generation and Supply projections,
- Importance of physical deliveries for creating liquidity (Physical Hub),
- Steps for creating the Turkish Gas Hub,
- Importance of EPIAŞ for supply and demand driven power prices,
- Diversification of gas supplies and securing long term cost efficiency.

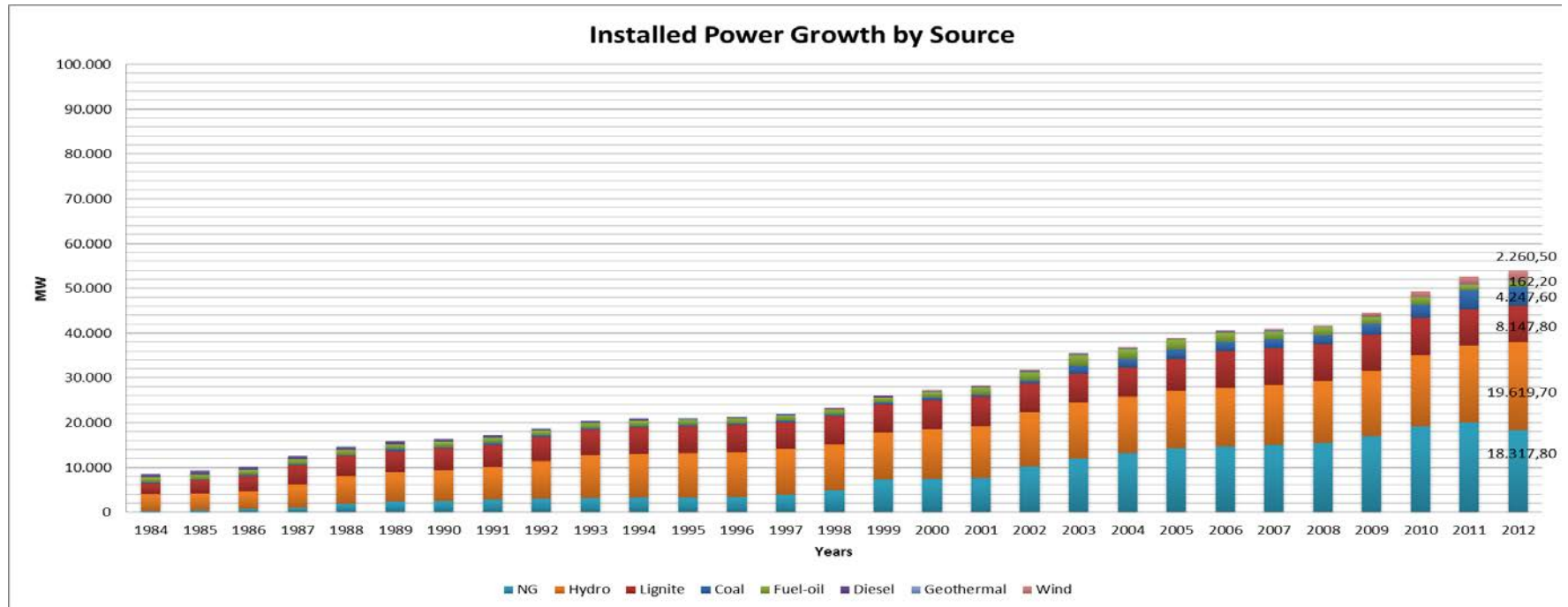
ETD In General

- Founded in 2010
- Designed and established by leading energy trading companies
- Works on Market liberalisation, Standardization, Transparency, Competition, Well designed and functioning Turkish Energy Market
 - In cooperation and coordination primarily with Ministry of Energy and Natural Resources (MENR), Energy Market Regulatory Authority (EMRA), TEİAŞ, and other NGOs of the Energy Sector
 - European Federation of Energy Traders (EFET)
- 42 Members
- Current Board
 - Turcas – S. Batu AKSOY
 - Limak – Birol ERGÜVEN
 - Gates – Mustafa KARAHAN
 - Gates – Arif ÖZOZAN
 - Akenerji – Ahmet Ümit DANIŞMAN
 - Enerjisa – Benedikt MESSNER
 - OMV – Burak ÜÇÖZ
 - Sanko – M. Cem AŞIK
 - Statkraft – Servet Anduvap Akgün
 - Yağmur – Mustafa DAMAR

ETD Members



Installed Power Base (MW): Actual & Projections

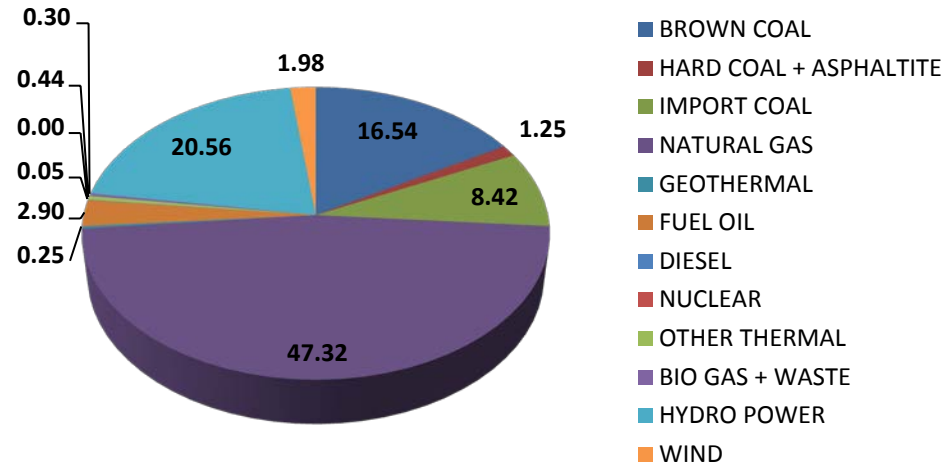


	Coal	Lignite	Fuel-oil	Diesel	Many sources	NG	Hydro	Geother.	Wind	Total
2010	3.000,00	8.200,00	1.651,20	26,50	107,00	19.293,80	15.831,20	94,20	1.320,20	49.524,10
2011	4.216,00	8.139,70	1.182,00	26,50	257,80	20.097,80	17.137,10	114,20	1.728,70	52.899,80
2012	4.247,60	8.147,80	1.229,20	26,50	3.060,20	18.317,80	19.619,70	162,20	2.260,50	57.071,50
2013	5.127,60	8.139,70	1.182,00	26,50	3.060,20	23.433,80	23.179,70	162,20	2.270,50	66.582,20
2014	5.315,60	8.139,70	1.182,00	26,50	3.060,20	24.946,80	25.344,70	196,20	3.344,50	71.556,20
2015	5.765,60	8.139,70	1.182,00	26,50	3.060,20	26.019,80	27.576,70	206,20	4.500,50	76.477,20
2016	9.585,60	8.139,70	1.182,00	26,50	3.060,20	28.843,80	30.057,70	206,20	4.963,50	86.065,20
2017	10.855,60	8.139,70	1.182,00	26,50	3.166,20	28.990,80	30.300,70	349,20	5.096,50	88.107,20
2018	11.977,60	8.139,70	1.182,00	26,50	3.166,20	28.990,80	30.746,70	349,20	5.096,50	89.675,20

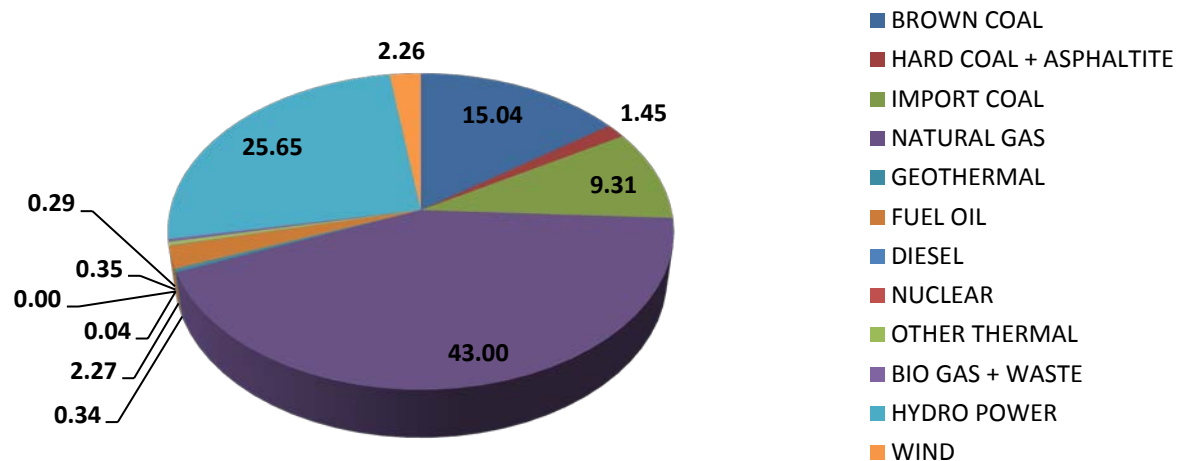
Source:TEİAŞ

Installed Power Base (MW): Actual & Projections

2012 POWER GENERATION QUANTILE

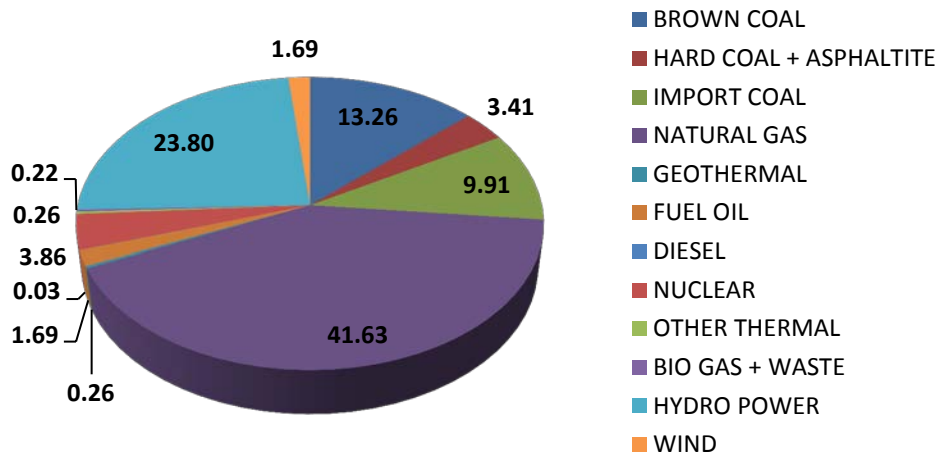


2016 POWER GENERATION QUANTILE



Installed Power Base (MW): Actual & Projections

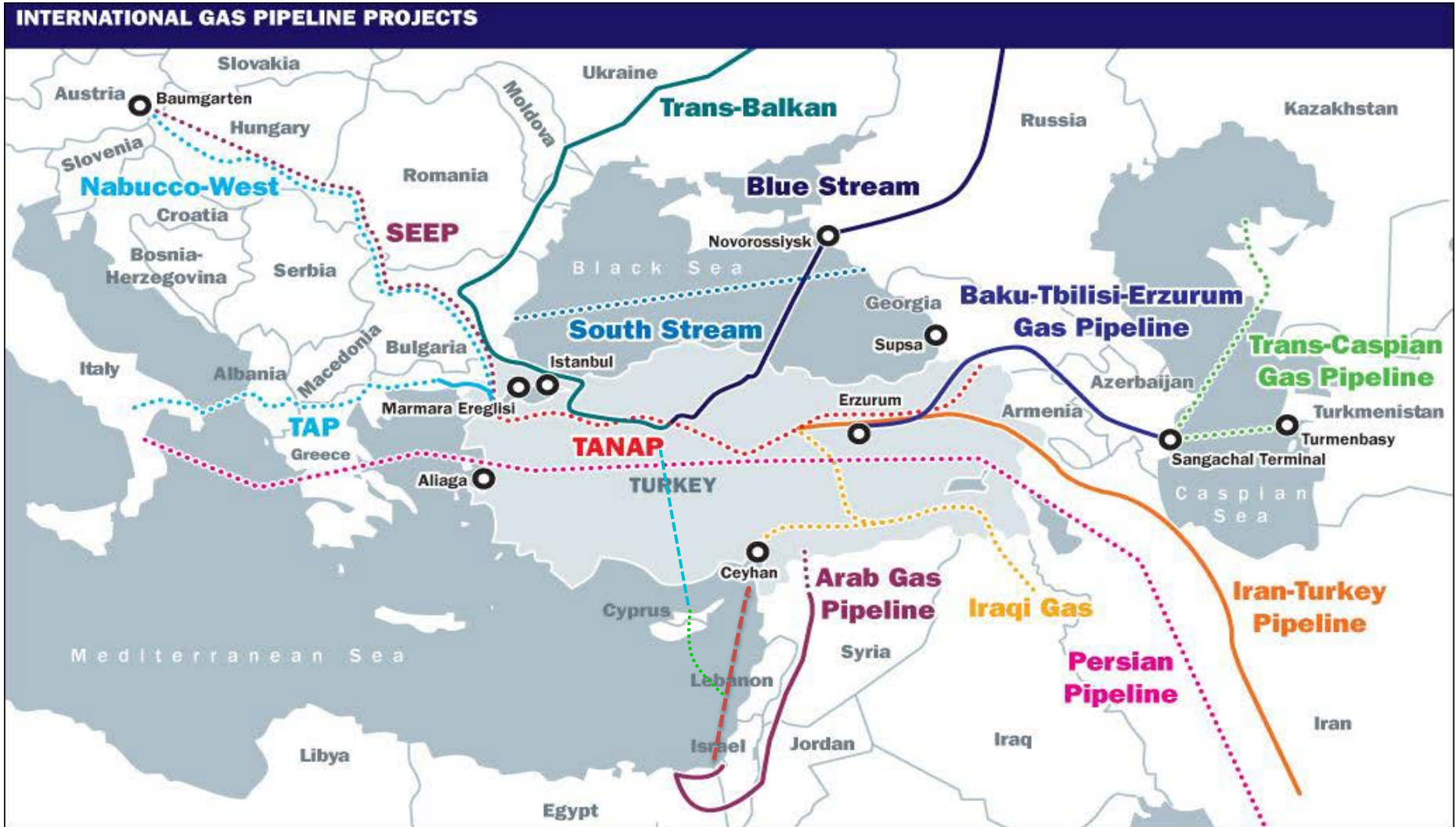
2021 POWER GENERATION QUANTILE



Source: TURCAS Demand Forecasting Platform

- Natural Gas will still be dominant,
- Share of hydroelectric power may decrease,
- Lignite shall be taken cautiously into generation portfolio, concerns on emissions and efficiency,
- Nuclear power, still a way to go to cover a considerable share.

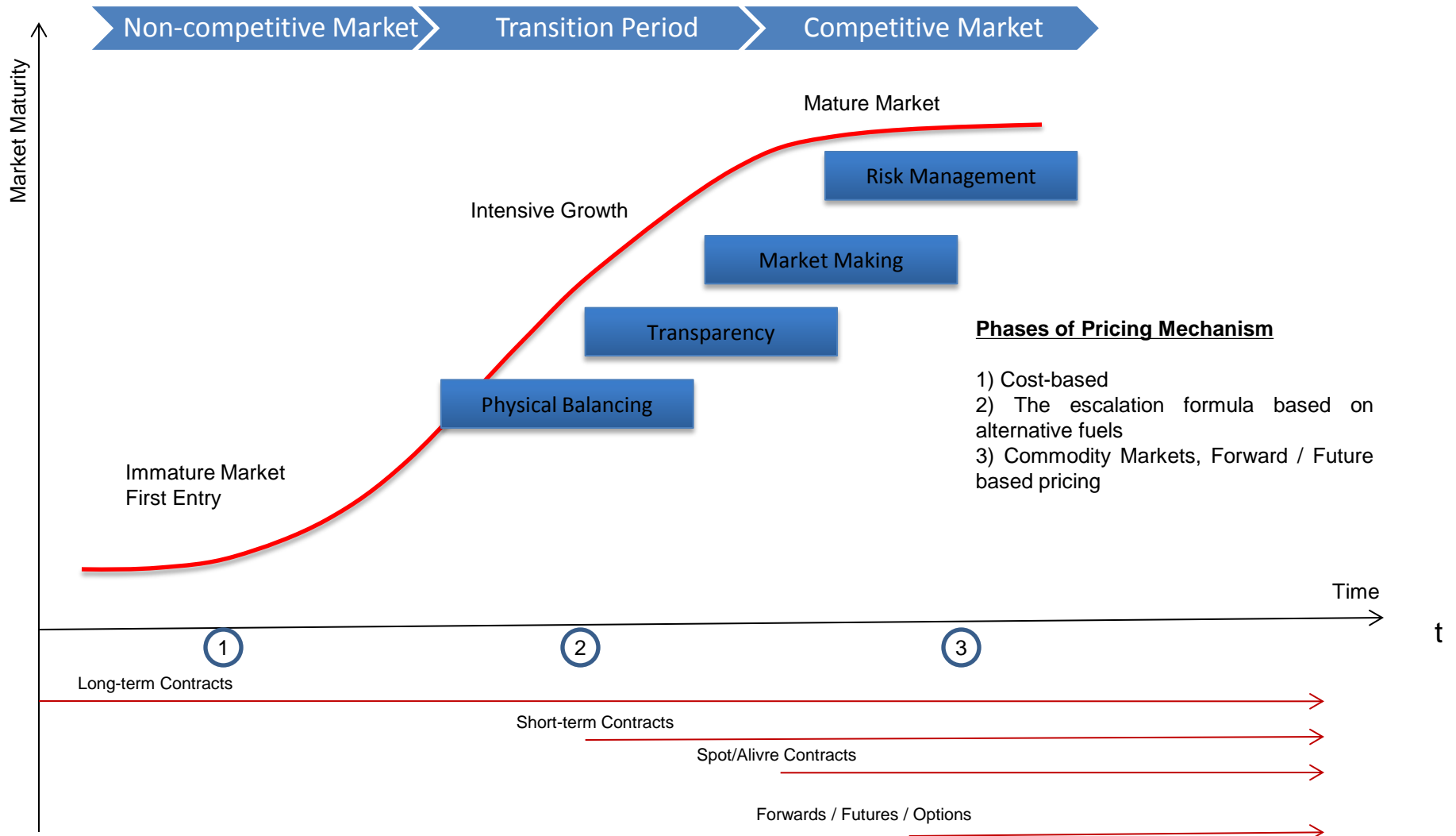
Southern Gas Corridor



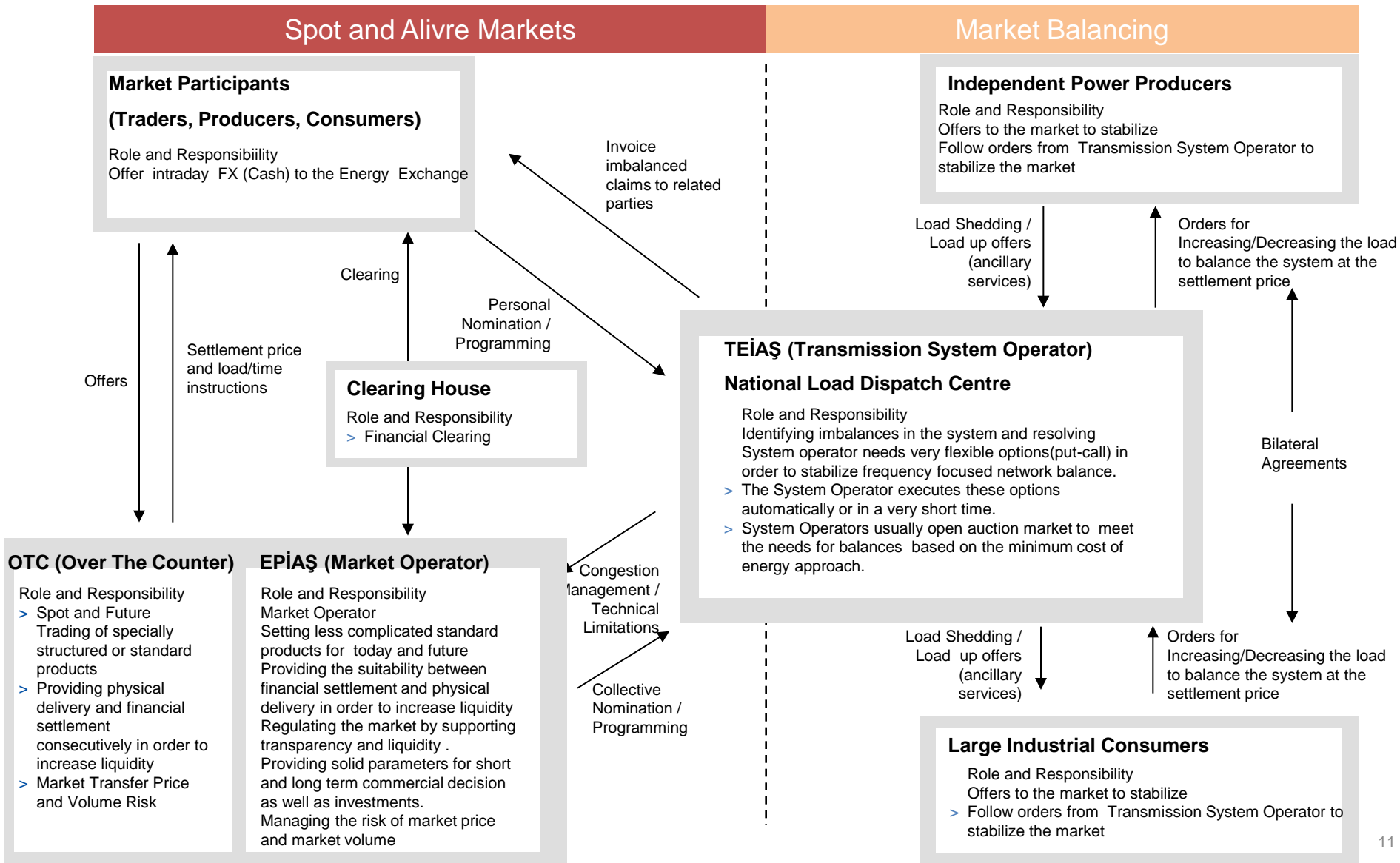
Prerequisites for an Advanced Hub

- Political Stability
- Liberal Market Structure
- Physical Asset Supply Diversity (Entry of products from diverse supply sources)
- Availability: Liquid Market with Depth and Spot Market
- Storage Capabilities & Availability of LNG Terminals
- Effective Balancing Application and Balancing Market
- Effective Congestion Management hindering physical technical congestion in the transmission
- Effective access of third parties to HP transmission lines*
- Effective Clearing and Settlement Mechanism
- Transparency & Availability of Actual and Forecast Data
- Horizontal escalation of wholesale market rather than vertical integration via less market dominating players

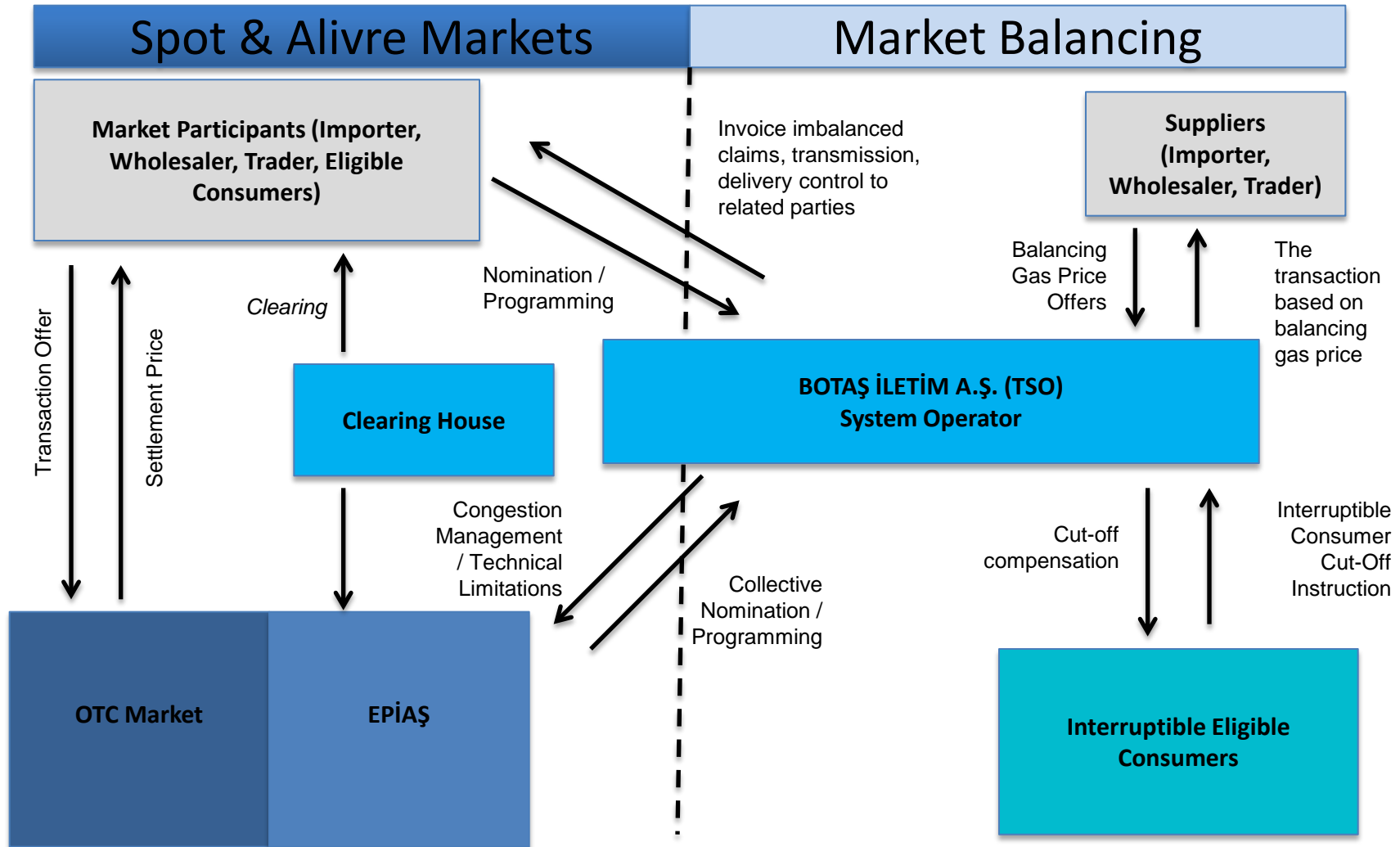
Dynamics of Developing Energy Markets



Future / Ideal Structure of the Turkish Power Market



Natural Gas Trading Center



**THANK YOU
FOR YOUR ATTENTION..**

etd ENERJİ | ENERGY
TİCARETİ | TRADERS
DERNEĞİ | ASSOCIATION