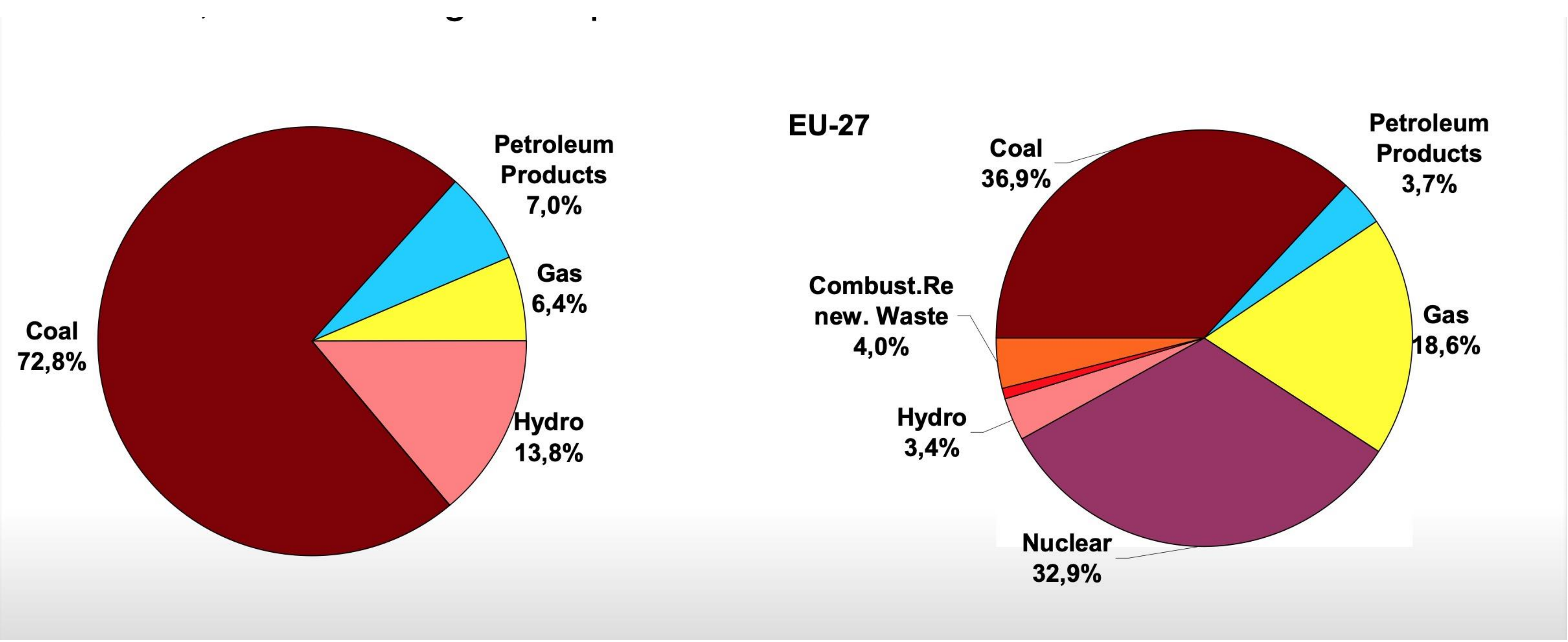
BALKAN LNG DYNAMICS

Challenges:

- interconnecting infrastructure
- lack of harmonization of legislative framework
- low consumption levels
- competition with other fuels
- dependence on cheap Gazprom gas and Gazprom's presence
- different level of EU membership status- North Macedonia, Albania, Serbia, Montenegro, Bosnia-Herzegovina and Kosovo are not members.

ENERGY CONSUMPTION BY FUEL



Gazprom’s local partners and subsidiaries

Table 5: Some Gazprom local partners and subsidiaries

Country	Gazprom investment or longer term partner	Activities of the company
Albania	n.a.	
Bosnia and Herzegovina	BH Gas	Gas import and trade
	Gas-RES	Gas infrastructure development
	Zarubezhneft of Russia	Oil refining and retail Upstream exploration with GazpromNeft of Serbia
Bulgaria	Topenergo	Gas trading and transport
	Overgas Inc. AD Owns : OVERGAS Engineering, Gastec BG,Vestitel BG and Overgas Capital AD	Holding company
	Overgas	Gas trading
Croatia	PPD	Gas re-sales, Trade in LPG,
	LNG Croatia	Cooperation contract on LNG / CNG retailing in Croatia
Greece	Prometheus Gas	Marketing and construction
	Unknown corporate entity	Tolling petroleum refining
Macedonia (FYR)	Makpetrol GAMA	Gas trade and transmission
	Sintez Group of Russia	Gas-to-power & District heating in the City of Skopje
Montenegro	n.a.	SerbiaGas present in LPG market
Kosovo*	unknown	GazpromNeft present in petroleum product retail market
Romania	WIEE Romania SRL	
	WIROM Gas S.A.	
	GazpromNeft of Serbia	Upstream exploration
Serbia	YugoRosGas	Gas transmission and distribution Exclusive gas import
	ProgresGasTrading	Trading
	NIS-GazpromNeft	Gas and oil upstream production Oil refining and retail, Tax collection
	RT Gas	Trading gas to industrial consumers, Bartering
	SerbiaGas	UGS JV company with GazProm Distribution of soft loans to gas consumers Partner in the JV company South Stream Serbia

Source: Author research

WHAT HAS CHANGED?

- Global developments:

-U.S. Shale gas

-Advent and improvement of LNG technology - transportation and storage. FSRUs and FSPOs

-Number of LNG exporting and importing countries increased significantly.

Regional developments:

- -More pipeline infrastructure and inter-connectors built in the region: Turk Stream, SGC.
- -Inter-connectors, reverse flow of the pipelines and coordination encouraged by the Third Energy Package. Balkan Gas Hub exchange to start in 2020.
- -East Med natural gas developments

Gas pipeline projects in SEE and Turkey

IMPLICATIONS:

- -market has become abundant with gas volumes which coupled with warmer weather conditions have brought the prices down to below $3.
- -More pipeline infrastructure and reverse flows have enabled countries to become more flexible in transiting volumes.
- -More LNG infrastructure in SEE region. FSRUs and FSPOs have become a game changer, especially in Turkey. FSRUs - one in Hatay, Med. another one in Aliaga, Izmir. Revithouse- Greece.

TURKEY: FSRUs

Revithoussa LNG terminal - Greece

PIPELINE PROJECTS STATUS:

- BRUA gas connection (Bulgaria-Romania-Hungary-Austria- UNDER CONSTRUCTION. 215 km built.
- Bulgaria-Greece inter-connector: UNDER CONSTRUCTION. 42 km built. 140 km left
- East ring gas pipeline (Slovakia-Hungary-Romania-Bulgaria)- NO TANGIBLE PROGRESS
- IAP gas pipeline (Croatia, Montenegro, Albania)- DESIGN COMPLETED

LNG TERMINALS

- LNG terminal on the island of KRK (Croatia).- 10 bcm/year UNDER CONSTRUCTION
- LNG terminal in Bar port, Montenegro- UNDER CONSIDERATION
- Alexandropoulos FSRU- MARKET TEST