



# Security of Supply CG - 9<sup>th</sup> virtual meeting of Sub-Group for Electricity

Winter Outlook 2020 and COVID-19

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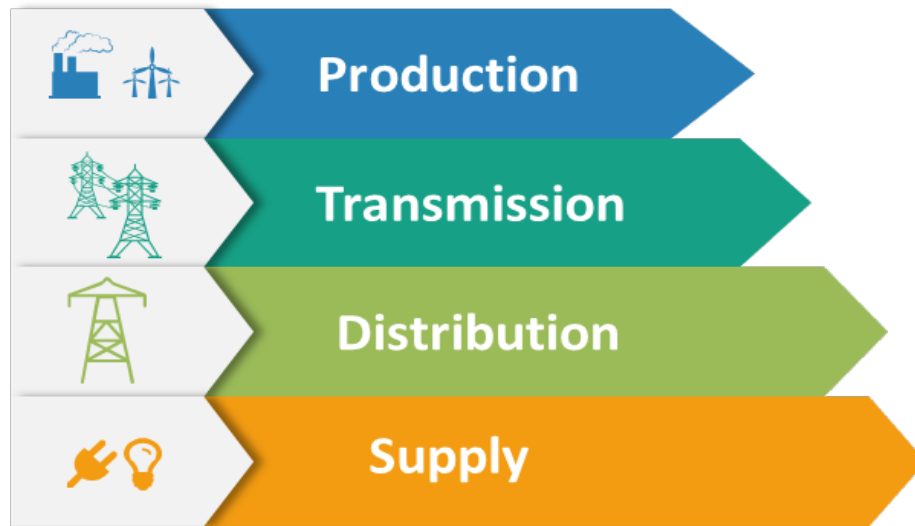
KOSOVO

Vienna, 11<sup>th</sup> December 2020

Virtual Meeting

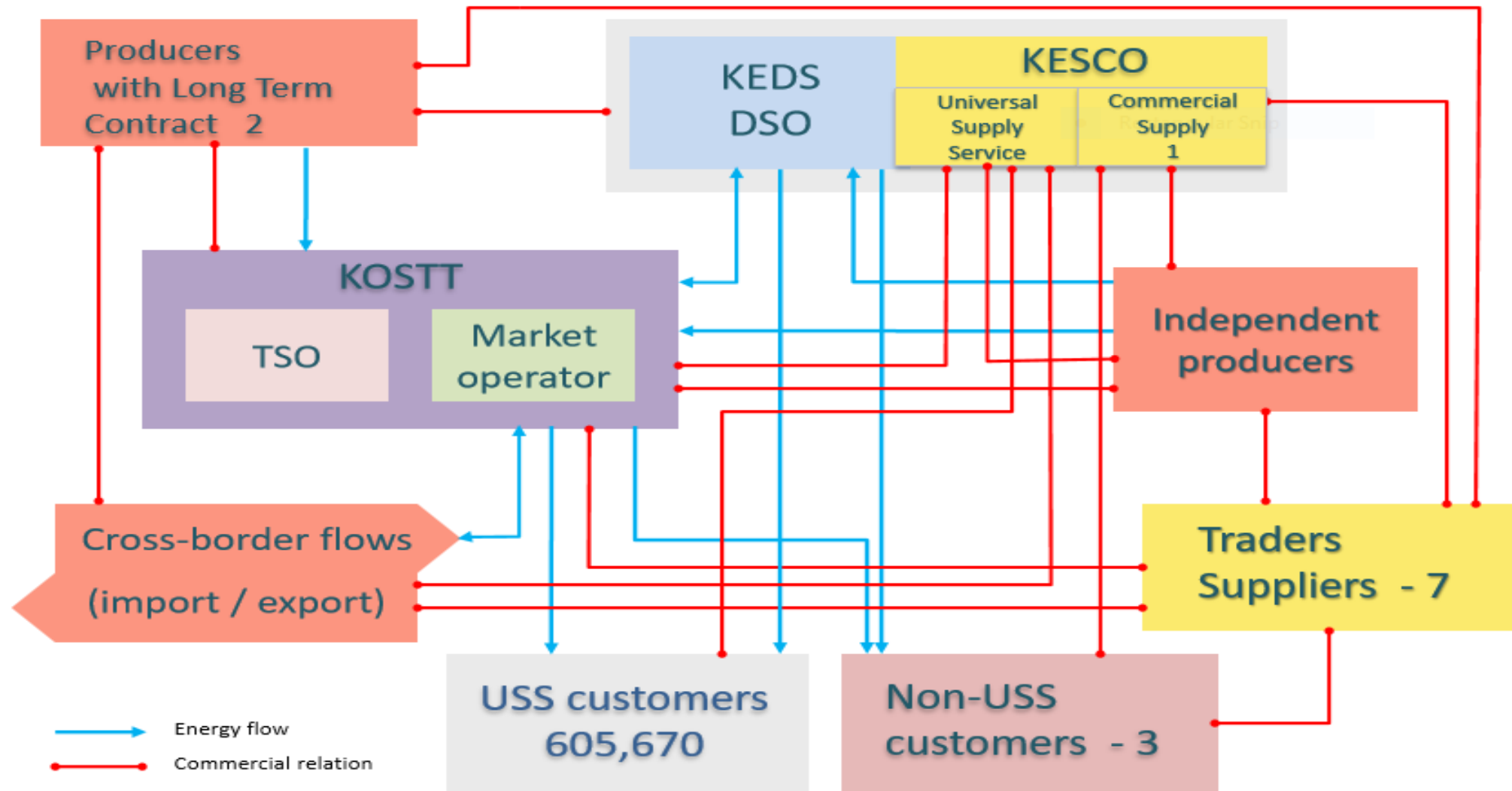
# Content

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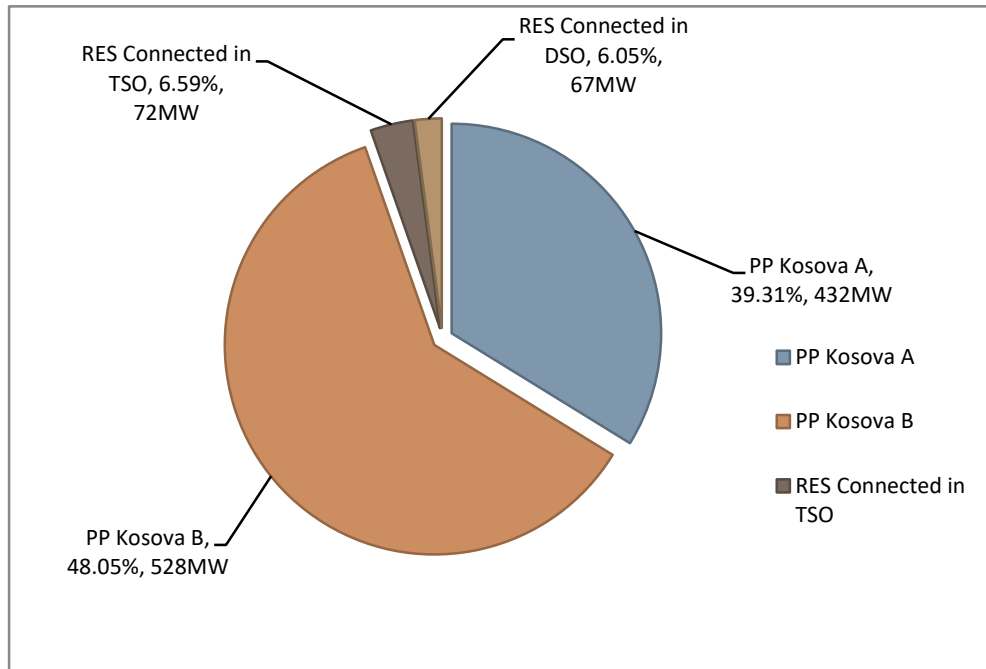


General note: During the period were not occurred any unusual issue in terms of SoS

# Kosovo Electricity Market

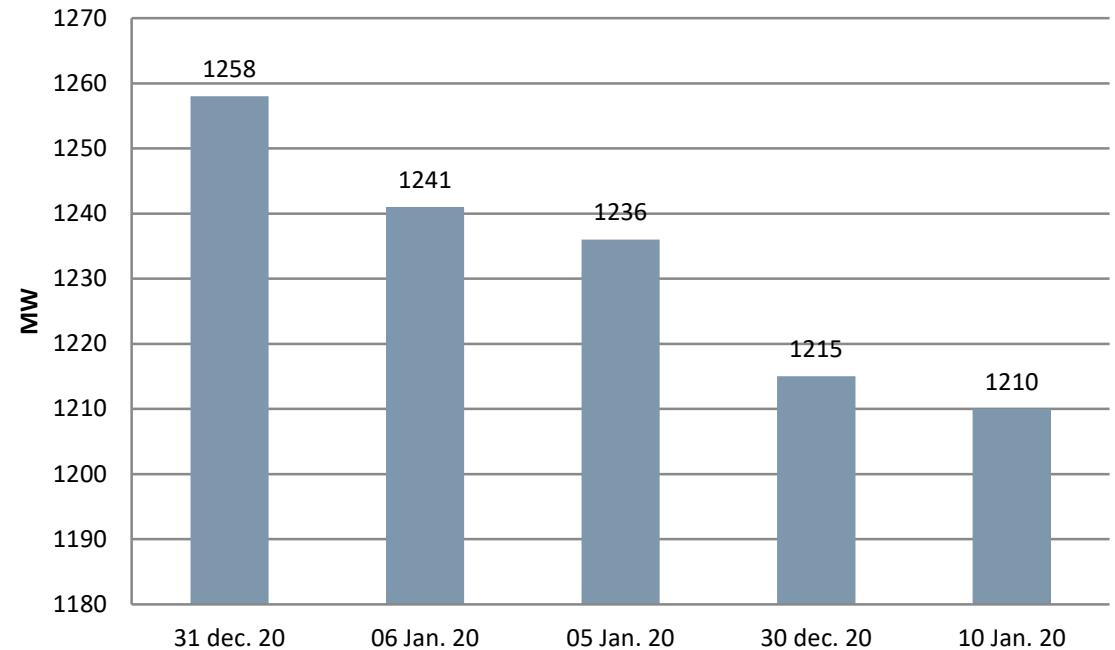


# Installed/Available Capacity vs Peak demand

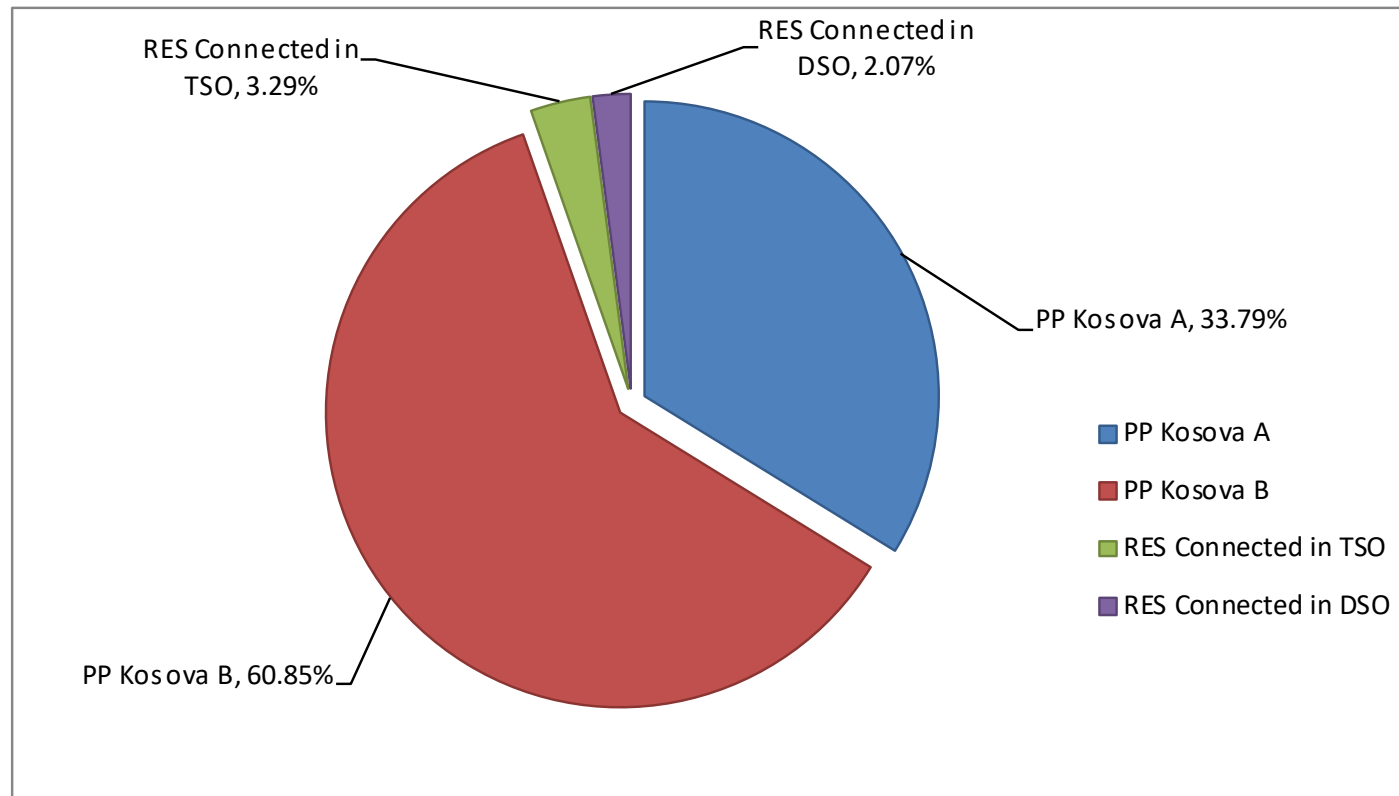


Actual installed capacity 1,430MW  
 Actual available capacity 1,099MW

### Five maximal system peaks 2020-Q1:2021



# Generation capacity resources by types



➤ 90% of generation capacity is from Thermal Power Plants (PP Kosova A and PP Kosova B)

## Supply and Consumption 2020 and 2020/2021 winter season (1)

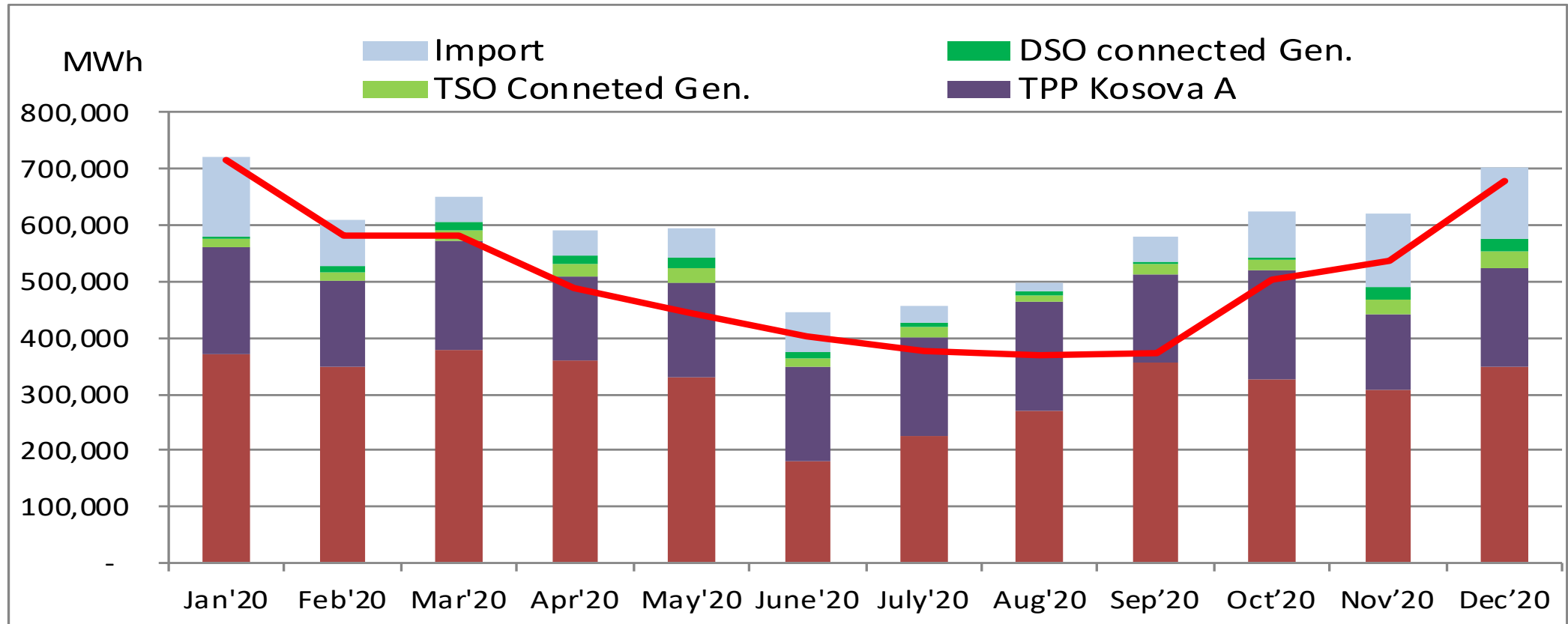
Description MWh	Total	Jan'20	Feb'20	Mar'20	Apr'20	May'20	June'20	July'20	Aug'20	Sep'20	Oct'20	Nov'20	Dec'20
TPP Kosova A	2,058,393	191,297	151,358	194,730	149,181	166,488	167,351	178,030	194,651	158,761	194,000	137,228	175,319
TPP Kosova B	3,797,913	369,233	349,674	377,968	360,452	330,445	181,668	224,004	269,023	355,158	326,039	305,703	348,546
TSO Conneted Gen.	223,199	15,774	16,011	18,337	20,603	26,316	13,281	15,555	10,266	15,791	18,006	24,019	29,241
DSO connected Gen.	151,137	5,124	9,186	15,832	17,456	20,053	13,692	8,501	7,374	3,621	6,193	21,680	22,424
Import	860,820	138,667	81,489	43,679	41,822	50,879	70,534	29,970	17,628	47,777	78,873	131,650	127,851
Total	7,091,462	720,095	607,718	650,546	589,513	594,181	446,526	456,060	498,942	581,108	623,112	620,280	703,381
<b>Gross Consumption</b>	<b>6,047,913</b>	<b>714,797</b>	<b>582,624</b>	<b>583,109</b>	<b>486,813</b>	<b>442,828</b>	<b>402,453</b>	<b>376,035</b>	<b>367,493</b>	<b>372,688</b>	<b>502,963</b>	<b>535,981</b>	<b>680,130</b>
Export	1,043,549	5,298	25,094	67,436	102,700	151,354	44,073	80,025	131,449	208,420	120,149	84,299	23,252

- Actual generation is higher 0.3 % than forecast
- Steady coal exploration and level of reserves is according to the plan
- Around 12% of the energy is secured from import, whereas export is around 15%
- Due to the state of emergency created by COVID 19 planed environmental upgrade of TPP Kosova B has been postponed in 2021 (unit B1 – Q1-Q3, 2021)

## Supply and Consumption 2020 and 2020/2021 winter season (2)

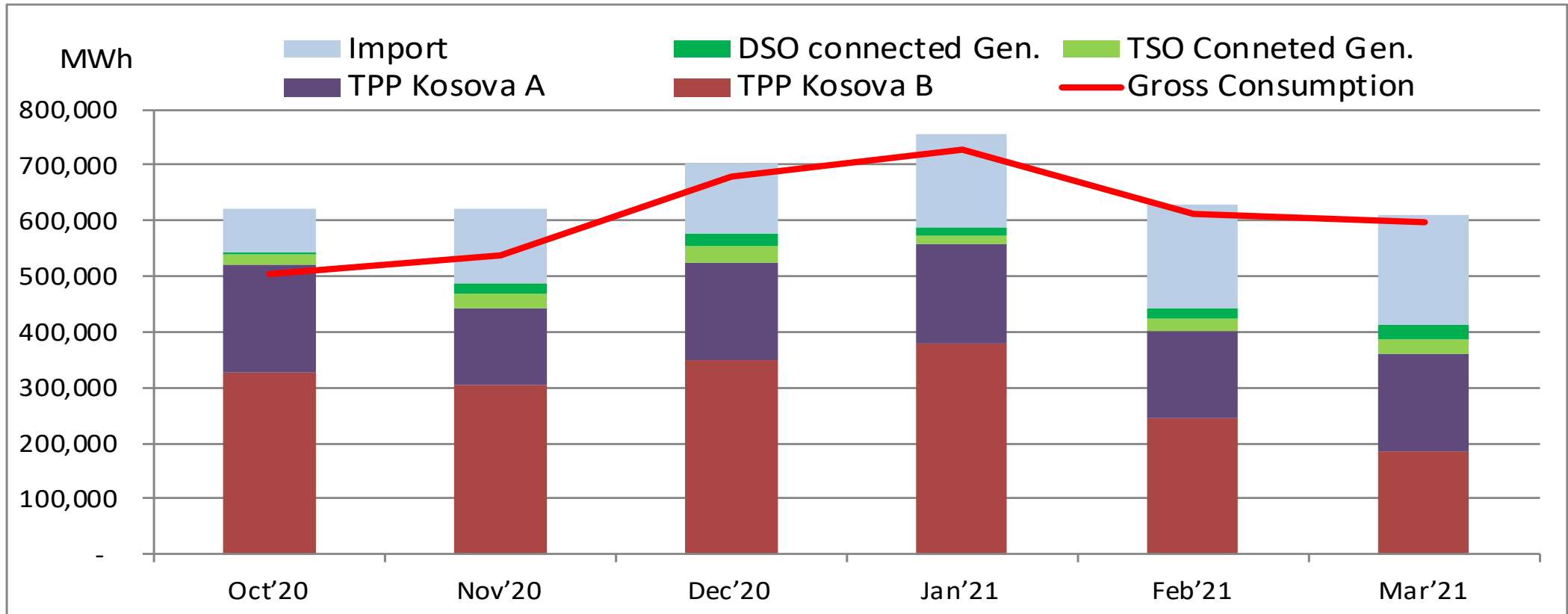
Description MWh	Total	Oct'20	Nov'20	Dec'20	Jan'21	Feb'21	Mar'21
TPP Kosova A	1,017,671	194,000	137,228	175,319	177,627	156,637	176,860
TPP Kosova B	1,791,417	326,039	305,703	348,546	379,413	246,652	185,064
TSO Conneted Gen.	134,322	18,006	24,019	29,241	17,246	20,831	24,979
DSO connected Gen.	108,995	6,193	21,680	22,424	13,086	18,140	27,472
Import	888,380	78,873	131,650	127,851	166,683	186,138	197,184
Total	3,940,785	623,112	620,280	703,381	754,054	628,397	611,560
<b>Gross Consumption</b>	<b>3,652,710</b>	<b>502,963</b>	<b>535,981</b>	<b>680,130</b>	<b>727,330</b>	<b>610,608</b>	<b>595,699</b>
Export	288,075	120,149	84,299	23,252	26,724	17,790	15,861

# Supply and Consumption 2020

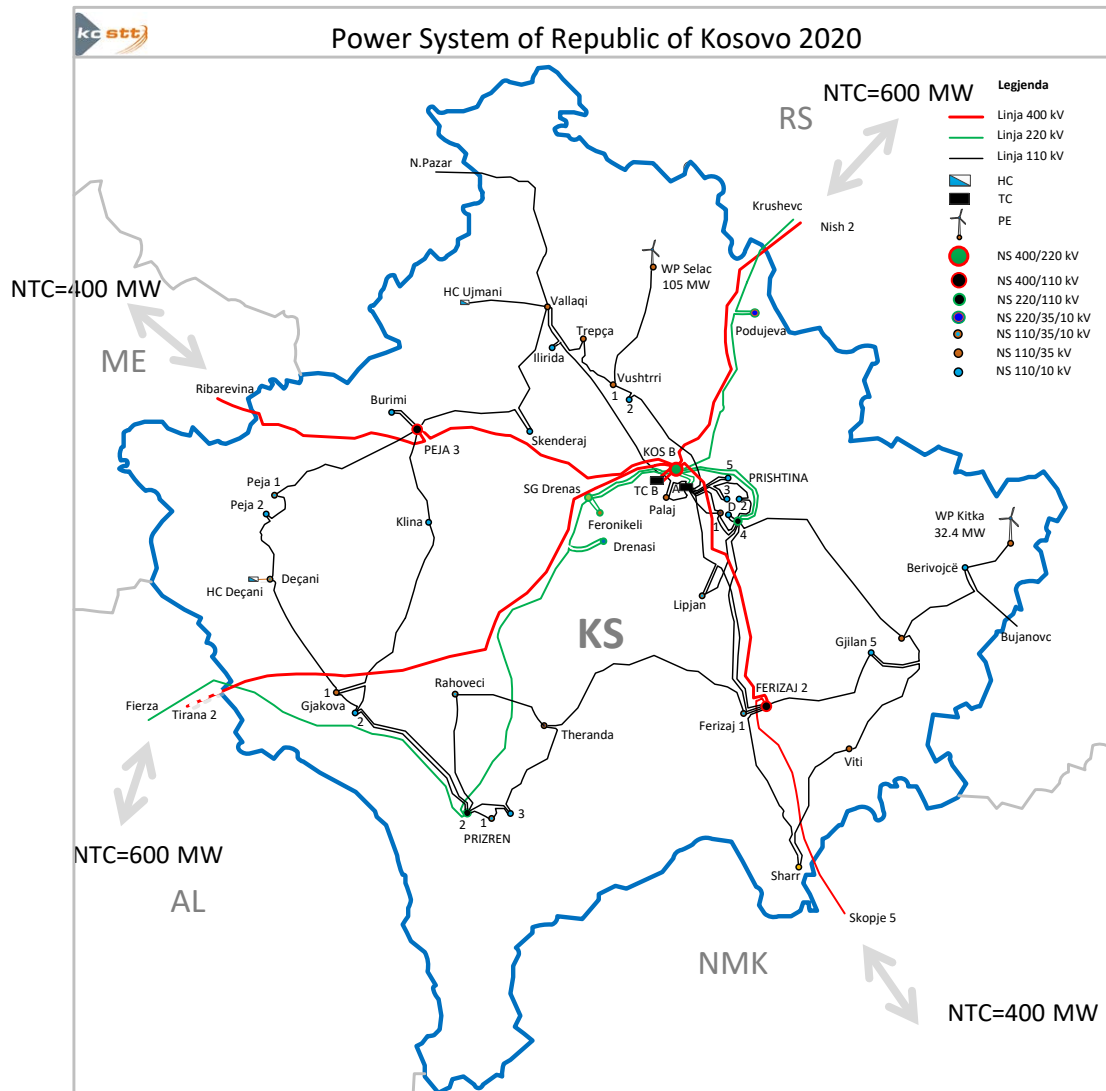




# Supply and Consumption winter 2020/2021



# KOSTT main infrastructure and system data (actual)



## Transmission lines

HV Lines in KOSTT	Line length [km]
400 kV	279.7
220 kV	238.5
110 kV	892.5

**Total line length =1410.7 km**

## Power Transformers and Substations

<b>Autotransformers</b>	<b>3750 MVA</b>
<b>Transformers</b>	<b>2320 MVA</b>
<b>Main HV Substations</b>	<b>7</b>
<b>Load Substations</b>	<b>31</b>

## Peak load last three years and forecast for 2020

Y-2016	Y-2017	Y-2018	Y-2019	Y-2020
1160 MW	1161 MW	1201 MW	1260MW	1258 MW

## Electricity demand last three years and forecast for 2020

Y-2016	Y-2017	Y-2018	Y-2019	Y-2020
5.43 TWh	5.78 TWh	5.78 TWh	6.073 TWh	6.372 TWh

# Transmission operations facts (1)

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## **ENTSO-E Activities**

- 14 December 2020 KOSTT will start to operate as Control Area in Control Block AK, under the synchronous area of Continental Europe.
- 5 October 2020 Kosovo's transmission system operator (TSO) KOSTT and its Albanian counterpart OST have signed the agreement on the establishment of the Albanian Power Exchange – ALPEX, formerly called APEX.

# Transmission operations facts (2)

## Network

- Strong interconnection Capacity/Peak=4.79
- Well Interconnected with neighbouring TSO-s (four 400 kV and two 220 kV lines)
- N-1 criterion is fulfilled for entire HV network
- Significantly reduction of ENS caused by transmission system
- Supporting industrial load growth and RES integration
- Transmission losses 1.78 % in 2020

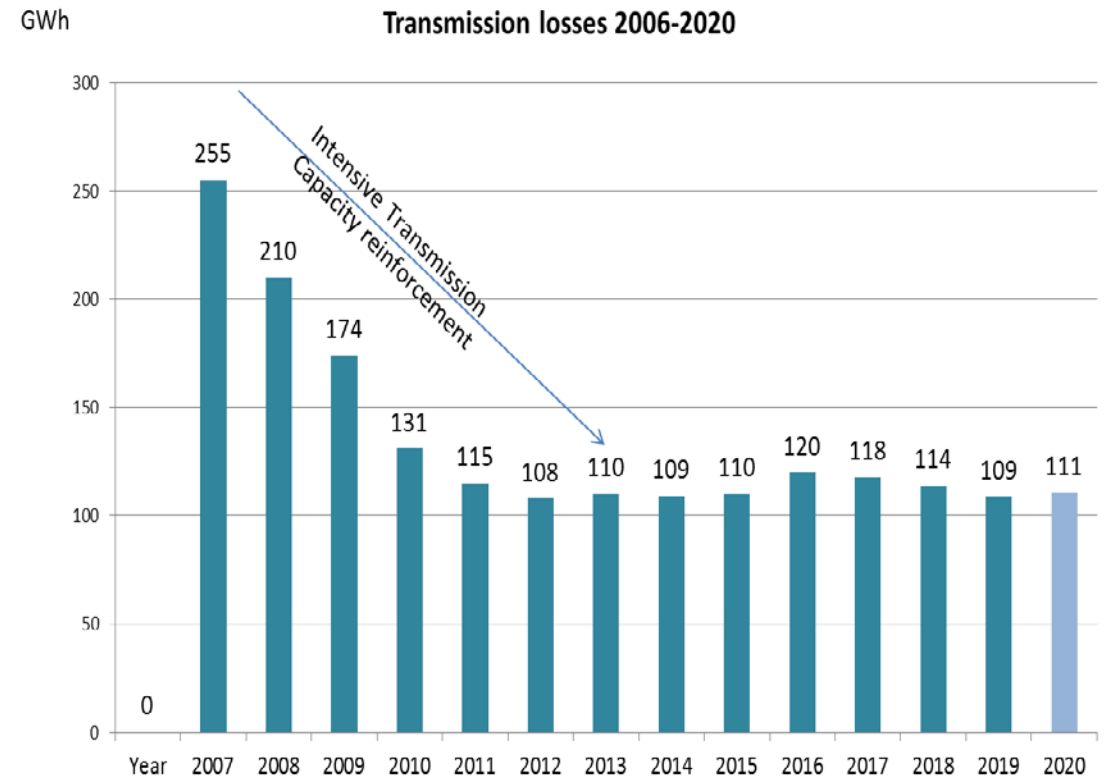
## TSO Developments 2020

New 110 kV line:

- SS Rahoveci-SS Theranda 16.5 km (Commissioned)
- WP SELACI 105 MW under construction (planned 2021)

## DSO TSO Developments 2020

- First phase of converting 10 kV distribution network to 20 kV in Pristina region (50% of the network is finished)



# Distribution (1)

Total EED is expected to be increased by 3.02%, whereas billed energy is increased around 2.95%

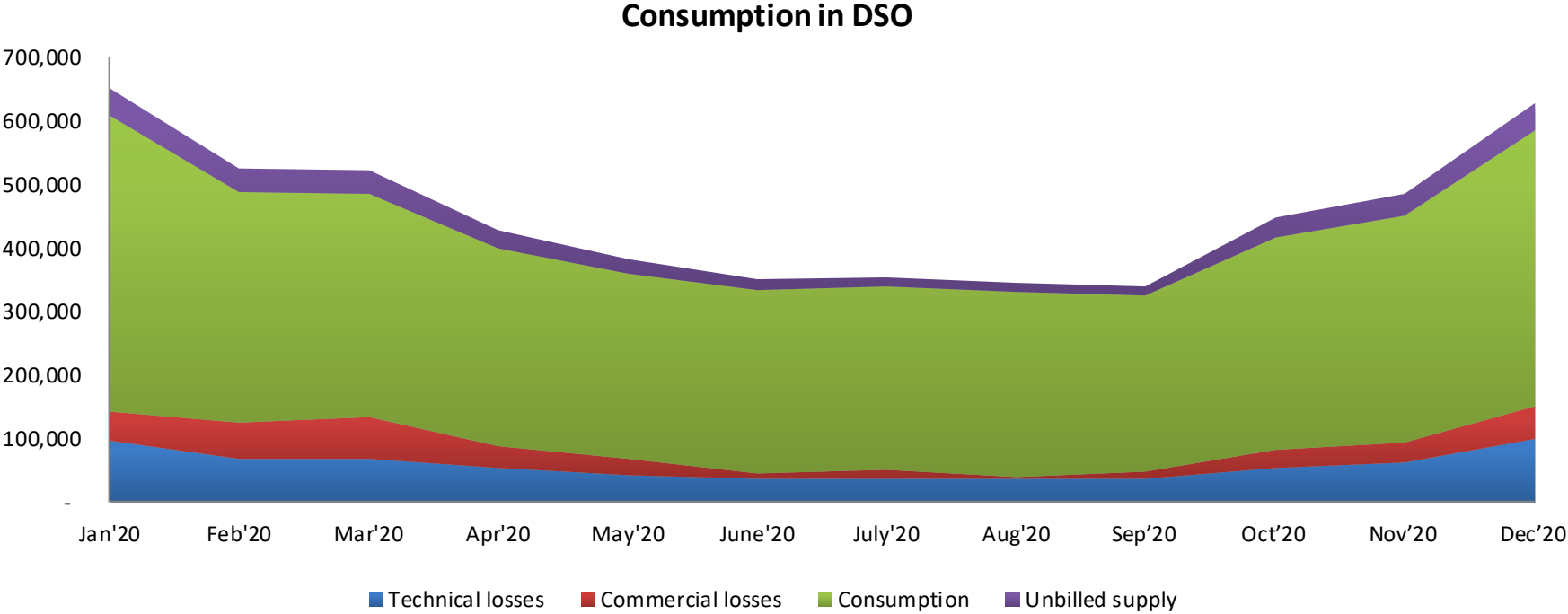
MWh	Total	Jan'20	Feb'20	Mar'20	Apr'20	May'20	June'20	July'20	Aug'20	Sep'20	Oct'20	Nov'20	Dec'20
EED (without UE)	5,150,703	608,192	489,303	486,420	398,681	360,407	333,369	338,783	330,137	324,037	417,009	463,375	600,990
Technical losses	685,968	96,906	69,254	67,497	52,449	42,330	36,126	36,955	35,125	35,763	52,883	61,264	99,416
Commercial losses	377,291	44,126	54,994	66,669	34,282	25,531	10,389	13,097	5,556	11,572	28,659	31,392	51,025
Consumption	4,060,493	467,160	365,054	352,254	311,950	292,546	286,855	288,732	289,456	276,702	335,467	358,835	435,482
Technical losses %	13.32%	15.9%	14.2%	13.9%	13.2%	11.7%	10.8%	10.9%	10.6%	11.0%	12.7%	13.2%	16.5%
Commercial losses %	7.33%	7.3%	11.2%	13.7%	8.6%	7.1%	3.1%	3.9%	1.7%	3.6%	6.9%	6.8%	8.5%
Unbilled supply	332,255	43,249	37,160	36,011	28,625	21,523	16,468	13,875	14,108	15,830	29,843	32,787	42,776
EED including Unbilled	5,482,958	651,441	526,463	522,431	427,306	381,930	349,837	352,658	344,246	339,866	446,852	496,162	643,766
Unbilled supply %	6.1%	6.6%	7.1%	6.9%	6.7%	5.6%	4.7%	3.9%	4.1%	4.7%	6.7%	6.6%	6.6%

Unbilled supplies (political losses ~ 6 %)

## Distribution winter outlook 2020/2021 (2)

MWh	Total	Oct'20	Nov'20	Dec'20	Jan'21	Feb'21	Mar'21
EED (without UE)	3,031,943	417,009	463,375	600,990	587,789	488,835	473,944
Technical losses	440,052	52,883	61,264	99,416	95,376	72,701	58,412
Commercial losses	230,807	28,659	31,392	51,025	49,772	39,450	30,509
Consumption	2,334,133	335,467	358,835	435,482	442,641	376,685	385,023
Technical losses %	14.5%	12.7%	13.2%	16.5%	16.2%	14.9%	12.3%
Commercial losses %	7.6%	6.9%	6.8%	8.5%	8.5%	8.1%	6.4%
Unbilled supply	225,438	29,843	32,787	42,776	46,737	37,465	35,830
EED including Unbilled	3,257,381	446,852	496,162	643,766	634,526	526,300	509,774
Unbilled supply %	6.9%	6.7%	6.6%	6.6%	7.4%	7.1%	7.0%

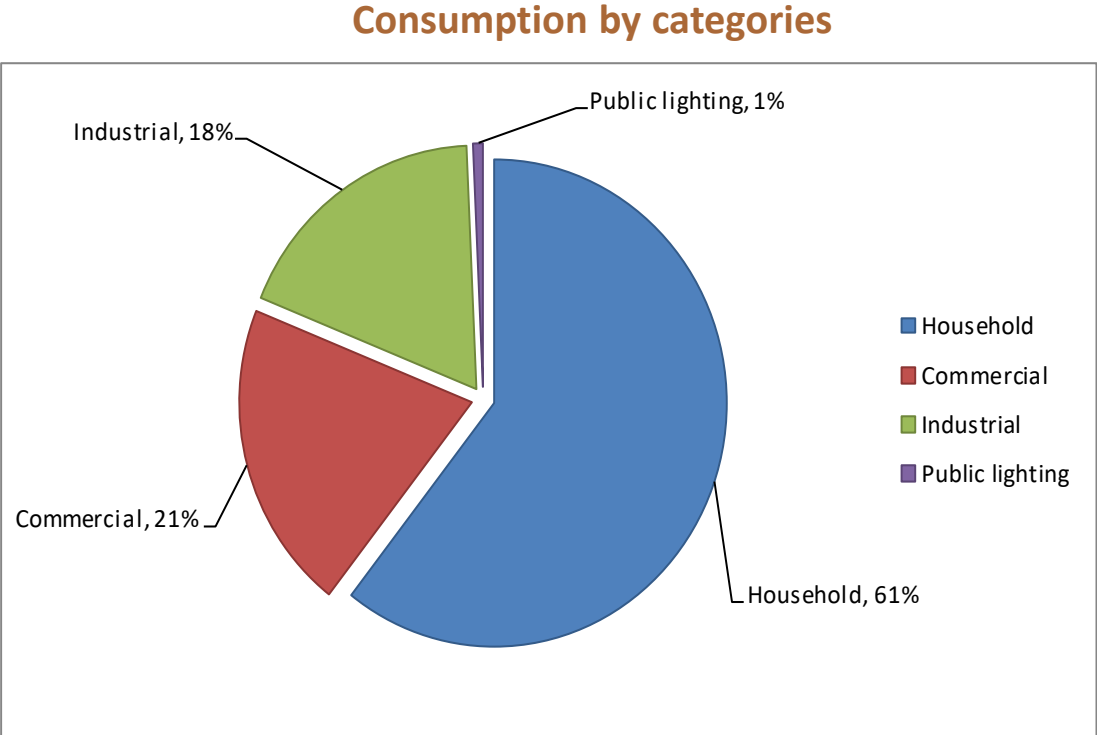
# Distribution (2)



*Expected demand in DSO is 5.5 TWh*

# Supply - Consumption by categories

- ❑ 8 licensed suppliers, among which are SLR (Supplier of Last Resort) and USS (Universal Service Supplier)
  
- ❑ Licensed suppliers:
  1. KESCO
  2. HEP Energia KS
  3. GSA Energji
  4. Future energy trading
  5. Jaha Company
  6. KEK
  7. Sharr Cem
  8. Energo LLC





## Covid-19 and Winter 2020 Outlook - Conclusions

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- The situation of electricity supply in the Republic of Kosovo is stable, the licensed companies have made all the necessary plans for sustainable supply of customers.
- We have submitted the Statement of Security of Supply for Kosovo within the deadlines, which includes all the requirements of the Energy Community.
- We also inform you because of the state of emergency created by COVID 19, companies are implementing all the instructions of the Government of the Republic of Kosovo to protect the health of employees at the time of the COVID-19 pandemic.
- Due to the state of emergency created by COVID 19 planned environmental upgrade of TPP Kosova B has been postponed in 2021 (unit B1 – Q1-Q3, 2021).

Thank you for your attention!

