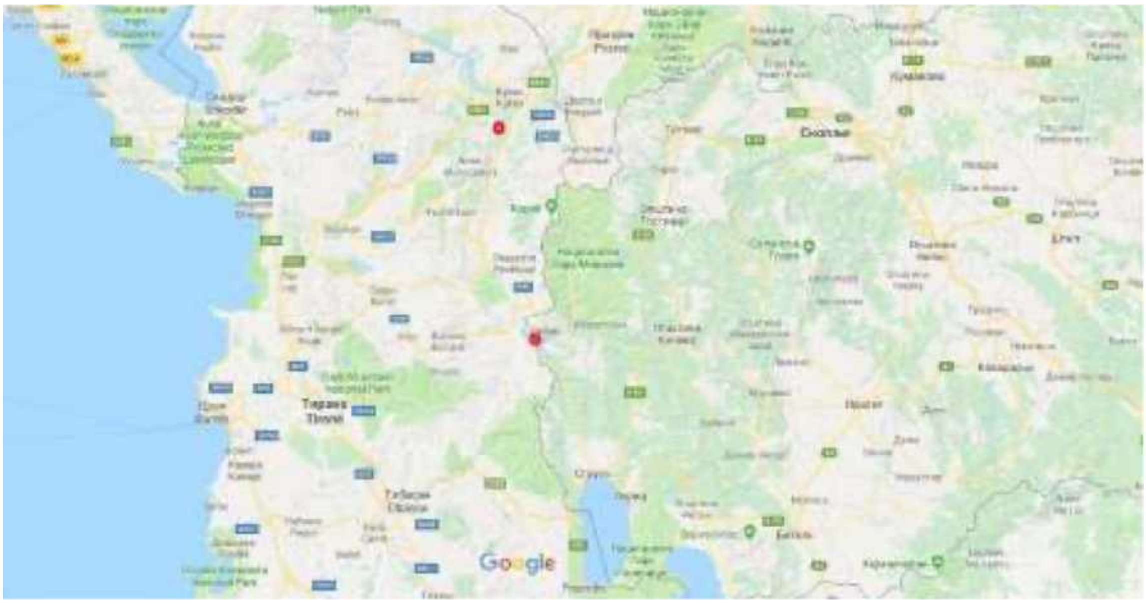
INNOVATIVE HYDRO POWER PLANTS IN ALBANIA

CHAPTER 2 HPP PROPOSAL – ALBANIA

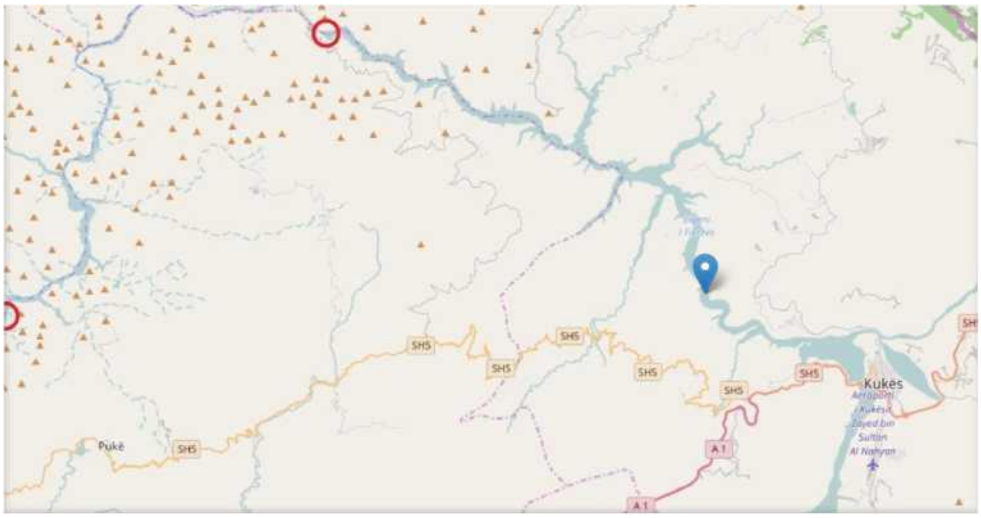


2021

Albania has a perfect geological terrain, with existing significant build up on the river beds. This can be further utilised to generate untapped energy through the use of innovative technology. Tesla Reversible Hydro Power technology can increase the energy generated, by more than 1GW.

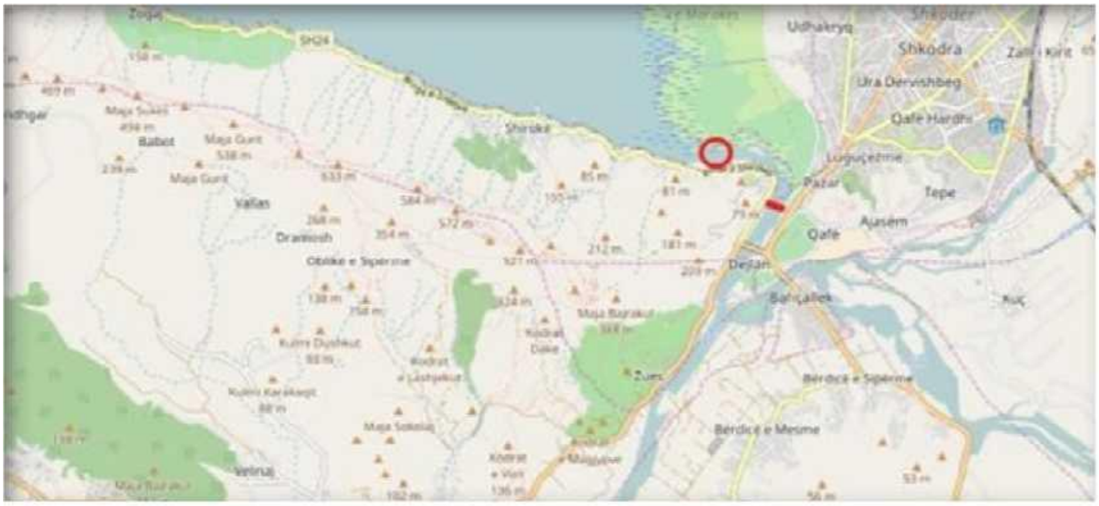
Lake Skadar will be used as the source and accumulation of water, which will be utilised by the proposed technology on River Drin.

Skadar Lake has an area of 370,000,000 m2, located at an altitude of 6 m above the sea level.



Fierza Lake has an area of 73,000,000 m2, located at an altitude of 290 m above sea level.

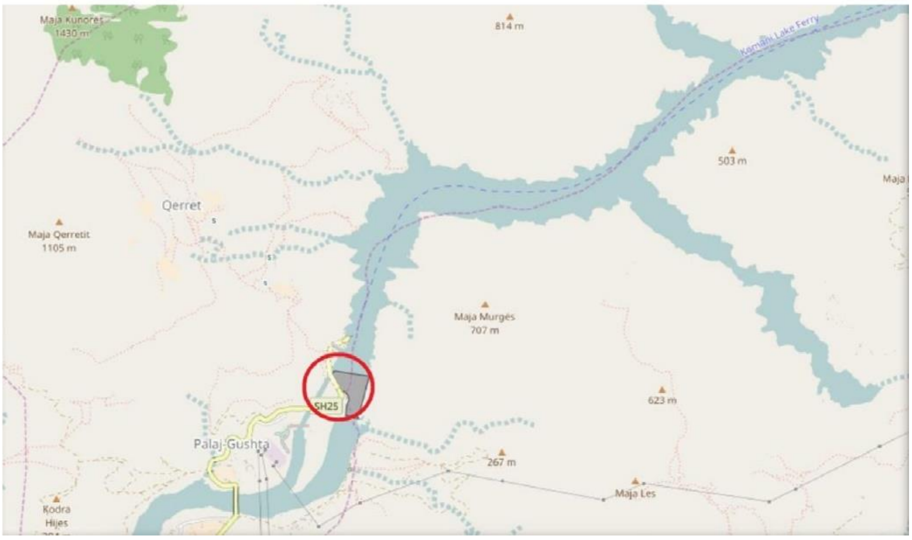
The difference in height between the Skadar Lake and Fierza Lake is approximately 280 m. Water level varies depending on the requirements for water consumption in the region and the inflows into Fierza Lake. In addition the requirement so f the existing HPP located on the River Drin.

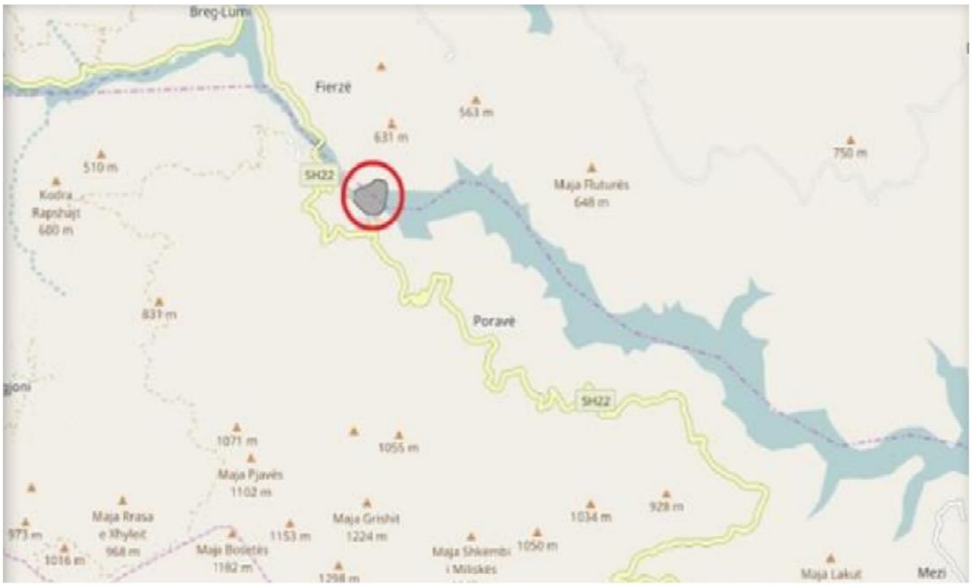


In order to correctly regulate the water flows from Lake Skadar, certain canals and pipelines are necessary to be created at River Bojana. Locations will be the mouth of River Drin where it joins River Bojana, as well as the mouth of the Drin where it flows into the Adriatic Sea.

In order to regulate the flow of water from Lake Skadar to River Bojana, it is necessary to create a mobile/floating dam that will raise the level of Skadar Lake by 1m. An increase of 1m will create an additional volume of water storage in Lake Skadar by 370.000.000 m3

Water from Lake Skadar will be pumped into the Wau and Dejes Lake, utilising the existing dam.





Water from Lakes Wau and Dejes will be pumped into Lake Komana, utilising the existing dam.

Water from Lake Komana would be pumped into Lake Fierza utilising the existing dam.Water levels of Lake Fierza vary by up to 15 m. With an area of 73,000,000 m2, it can store up to 1,100,000,000 m3 of water, which periodically is pumped from Lake Skadar.

The current installed capacity of the three existing HPP on River Drin amount to 1360MW.

Existing installations can be upgraded with 500MW generators to power the pumps necessary for the innovative technology. Using Tesla innovative solution, in harmony with the existing HPP, the projected and installed capacity of River Drin will have a total power generation in excess of 2GW. An innovative solution will harness the energy from current seasonal water flows, and all overflows, pure “Blue Energy”.

A new 500MW generator will operate at a maximum flow of 200 m3/s, in tandem with additional flow from River Drin which are currently used by existing HPP.For optimum operation of the new 500MW generators in a daytime operation (mh), it will require approximately 150 days for the level of Lake Fiezra to rise.

The water levels will rise and fall accordingly to ensure smoot hand continuous operation. Installing our innovative solution will enhance the ability of Albania to store and distribute energy across the Balkans.

It will further integrate with the operations of existing TPP and future wind farms to be built in Albania. Additional capacity can be investigated, in particular around the artificial lakes created to operate the HPP at Ulez

Other Tesla HPP options exist for River Crni Drin; our wish is to present innovative solutions that are created in the Balkans, for use in the Balkans and beyond.

Serbia's 2,400MW Djerdap 3 Hydro Power Project Kick off Seen in up to 3 Yrs

BELGRADE (Serbia), November 4 (SeeNews) - The construction of a 2,400 megawatt hydro power station in eastern Serbia could get underway over the next two to three years, Belgrade based news media reported,

Preliminary estimates suggest the cost of the Djerdap 3 power station could run up to nearly 6.0 billion euro ($8.6 billion), news daily Vecemje Novosti (www.novosti.rs) reported, quoting CEO of state-owned Djerdap hydro power complex Dragan Stankovicas saying late on Wednesday.

Germany's RWE has expressed interest in the project, Stankovic also said.

The planned capacity of the Djerdap 3 power station equals 34% ofthe current electricity generation capacity of Serbian power monopoly EPS.

The Djerdap hydro power complex, on the river Danube, was built jointly by Serbia and Romania and was commissioned in 1971,

The Djerdap 1 and Djerdap 2 hydropower plants have a capacity of 1,058 MW and 270 MW. respectively,

No power plants have been built in Serbia over the past 20 years.
($=0.7016 euro)

(1.7.2017. Serbia's 2,400MW Djerdap 3 Hydro Power Project Kick-off Seen in up to 3 Yrs – SeeNews – Business intelligence for Southeast Europe)

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Comparison of Existing Plant V's New Solution

HPP Derdap 3, Serbia	Upgrade of 3 HPP on River Drin
Installed Power 2400 MW	Installed Power 500 KW
Flow Rate 400 m³ / s	Flow Rate 200 m³ / s
Used for quarterly energy balance in Serbia	Used for annual energy balance in Albania
Creation of two artificial lakes with no natural water in-flow. Needs to utilise River Danube for water	Relying on 3 existing artificial lakes with additional flow from Lake Skadar
Total Capacity 578.000.000 m³	Part Capacity 1,100,000,000 m³ of water
Water/Energy Ratio 1 MW = 241.000 m³	Water/Energy Ratio 1 MW = 2,200,000 m³
Cost of Construction 6,000,000,000 Euros	Cost of Construction 400,000,000
Time for Construction 6-10 years (Staged)	Time for Construction up to 3 years
Capital requirements are 3 times more than innovative solution	Capital requirements are 3 times less than the classical method of construction.

Notes: Upgrading the three existing hydropower plants on the River Drin utilises less than half of the water flow than for the proposed HPP in Serbia. The annual requirements for energy in Albania can be obtained, especially in times of high consumption. Reservoirs for the storage of water already exist and are not subject to desertification or seepage through the soil. The utilisable capacity of existing reservoirs is up to 4 times greater than the proposed HPP in Serbia. The use of existing water storage capacity per MW is up to 20 times more efficient. This effectively supplies the operation of the Tesla innovative HPP throughout the year.

Financial considerations

Tesla Reversible HPP is 15 times less expensive, three times quicker to construct, and upgrades the existing facilities. Invested capital, therefore, is able to achieve a faster return on investment, leading to increased profitability and the ability to gain a commercial advantage compared to other technologies. The repayment period is shorter, and the lifespan longer, therefore the cost of energy is reduced over the shorter term. Albania will be in a position to set favourable market prices to reflect this and achieve a commercial advantage in the Balkans.

Maintenance: Ongoing regular servicing is necessary to maintain the existing and innovations in a pristine state. With careful planning and a commitment to an agreed schedule, the combined solution will last for centuries. Albania is then in a position to meet its future energy requirements ahead of its neighbours.

Comparison Of Potential Energy Generation V's Water Volume In Rivers

Height of Cascade	1.5 m	2 m	2.5 m	3 m	3.5 m	4 m
Volume of Water in River						
5 (m³/s)		70 kWh	87 kWh	105 kWh	122 kWh	140 kWh
10 (m³/s)	105 kWh	140 kWh	175 kWh	210 kWh	245 kWh	280 kWh
20 (m³/s)	210 kWh	280 kWh	350 kWh	420 kWh	490 kWh	560 kWh
30 (m³/s)	315 kWh	420 kWh	525 kWh	630 kWh	735 kWh	840 kWh
40 (m³/s)	420 kWh	560 kWh	700 kWh	840 kWh	980 kWh	1.420 kWh
50 (m³/s)	525 kWh	700 kWh	875 kWh	1.050 kWh	1.225 kWh	1.400 kWh
60 (m³/s)	630 kWh	840 kWh	1.050 kWh	1.260 kWh	1.470 kWh	1.680 kWh
70 (m³/s)	735 kWh	980 kWh	1.225 kWh	1.470 kWh	1.715 kWh	1.960 kWh
80 (m³/s)	840 kWh	1.120 kWh	1.400 kWh	1.680 kWh	1.960 kWh	2.240 kWh
90 (m³/s)	945 kWh	1.260 kWh	1.575 kWh	1.890 kWh	2.205 kWh	2.520 kWh
100 (m³/s)	1.050 kWh	1.400 kWh	1.750 kWh	2.100 kWh	2.450 kWh	2.800 kWh
150 (m³/s)	1.575 kWh	2.100 kWh	2.625 kWh	3.150 kWh	3.675 kWh	4.200 kWh
200 (m³/s)	2.100 kWh	2.800 kWh	3.500 kWh	4.200 kWh	4.900 kWh	5.600 kWh
250 (m³/s)	2.625 kWh	3.500 kWh	4.375 kWh	5.250 kWh	6.125 kWh	7.000 kWh
300 (m³/s)	3.150 kWh	4.200 kWh	5.250 kWh	6.300 kWh	7.350 kWh	8.400 kWh
400 (m³/s)	4.200 kWh	5.600 kWh	7.000 kWh	8.400 kWh	9.800 kWh	11,20 MWh
500 (m³/s)	5.250 kWh	7.000 kWh	8.750 kWh	10,50 MWh	12,25 MWh	14,00 MWh
600 (m³/s)	6.300 kWh	8.400 kWh	10,50 MWh	12,60 MWh	14,70 MWh	16,80 MWh

The location of the Cascades is dependent upon the geological profile of the riverbed.

This table demonstrates the energy generation capabilities per hour using our technology!

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