Green park

Krka National Park, Croatia, is the first national park in the world to install ABB Terra 53 fast DC/AC chargers.

ALEKSANDAR RADOSAVLJEVIC, MERSIHA VELIC HAJDARHODZIC, MICHELLE KIENER – Krka National Park, situated in Šibenik-Knin county in Croatia, is a world famous natural phenomenon with its seven waterfalls of the Krka River. On the park’s territory there are many historical and cultural monuments, one of them is the remains of the hydro power plant Jaruga, the oldest power generating facility in the world, built in 1895. That was the first alternating current (AC) power system in Croatia, the first in Europe and the second in the world, coming online only two days after the Niagara Falls AC plant. To protect its nature and heritage Krka National Park has invested in five electric vehicles and four ABB DC electric vehicle fast-charging stations: Terra 53 CJG. The first unit is already installed and it is operating every day at Lozovac, nearby the town of Šibenik and the hydro plant Jaruga.
Krka National Park (Krka NP) is home to numerous endemic plants, geomorphological forms of rocks and animal species and covers a total area of 109 km². It is challenging to maintain and preserve natural rarities and therefore the park managers undertake constant efforts in order to keep the high level of conservation of these natural treasures. One aspect of this work has been the initiative to use electric and hybrid plug-in vehicles within the park and to provide fast DC charging stations. The first charging station is already in operation in Lozovac. The next charging station will be installed as part of the new information center at Laškovica above Roški slap and the remaining stations will be strategically placed at a variety of locations within the park.

An even greener park
The missions of Krka NP include reducing CO₂ emissions, as well as reducing noise, fuel consumption and maintenance costs. To invite all park visitors to be part of the efforts to protect the environment, the charging stations will be available for all visitors with electric cars. “This is a step forward in nature conservation, and we are particularly proud that the Public Institution of Krka National Park joined the Green Line project, which provides protected areas the opportunity to serve as a model for the introduction and broader user of electric vehicles. We hope that the project will continue to develop, to allow greater numbers of citizens to become direct contributors to environmental protection through the purchase of electric vehicles,” stressed Krešimir Šakić, director of the Public Institution of Krka NP.

The electric vehicle charging infrastructure is a Terra DC 53 multi-standard 50 kW modular station with one, two or three plugs for the rapid charging of electric vehicles. The stations are set to charge two cars at the same time and charging lasts for a duration of 0.5 to 1.5 hours, depending on the capacity of the vehicle battery. The ABB chargers are equipped with internet-based connected services and allow users to easily connect to different software systems and payment platforms. The connectivity also enables remote monitoring, maintenance and functionality add-ons. The working temperature of the charging stations is from –35 °C to +50 °C.

Green line
The initiative is part of the “Green Line” program, launched by the Ministry of Environmental and Nature Protection and the Environmental Protection and Energy Efficiency Fund which is intended for public institutes managing protected areas, national parks and nature parks.

The stations are designed for super-rapid charging and are ideal for use at petrol stations and in urban city areas with high vehicle traffic. The first station came online in September 2016 and is particularly special as the stations are set to charge two cars at the same time and charging lasts for a duration of 0.5 to 1.5 hours, depending on the capacity of the vehicle battery. The ABB chargers are equipped with internet-based connected services and allow users to easily connect to different software systems and payment platforms. The connectivity also enables remote monitoring, maintenance and functionality add-ons. The working temperature of the charging stations is from –35 °C to +50 °C.

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cause it's the first ABB fast electric vehicle charging station installed in any national park in the world. In addition, Krka NP is one of the first European parks to install electric vehicle charging stations.

The local area has a history of firsts. The park is close to the town of Šibenik, which was the first town in the world to have street lights powered by electricity. In 1895 some houses in the town were electrified and 340 street lights installed, made possible, of course, by the nearby Jaruga hydro-power plant. Yet more poignant is that the birthplace of Nikola Tesla, Smiljan, is only 100km to the north of the park.

One can only wonder what Tesla's thoughts would be on seeing these new DC installations. But it would be nice to think that he would see the bigger picture and appreciate the work being done to conserve a national park, as well as the wider environment. In Krka NP there is no war of the currents. Simply a motivation to provide sustainable infrastructure, where the quiet hum of an EV engine is no distraction to the gentle sounds of nature, undisturbed by man-made emissions.

The station is special because it's the first ABB fast electric vehicle charging station installed in any national park in the world.

The authors would like to thank the team from Krka NP, especially: Krešimir Šakic, Joško Baljkas and Katia Župan.