



## **ECRB Preliminary Survey on E-Mobility issues**

In line with ECRB Working program for 2020, ECRB CRM WG Task Force E-mobility, started to collect data from EnC NRAs +Greek NRA, in early 2020.

Set of 12 Questions cover all aspects of E-Mobility:

Existing legal framework, role of NRA, licensing, connection costs, tariff design, tendering procedure, introduction of EV, recharging stations, state support mechanisms, V2G Services, smart metering, etc

Aim: ECRB CRM WG Report of Current status of E-Mobility in EnC (regarding legal, regulatory and technical aspects) with conclusions and recommendations



#### Legal aspects of E-Mobility

# 1) Are the E-mobility related issues defined in the primary/secondary national legislation?

Four of ten participating NRAs reported that legal framework regulating E-Mobility is already in force or preparation/revision in the near future.

Among them, only in Greece and Ukraine E-mobility related issues are defined in primary legislation.

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#### Comparison with EU

The EU has already regulated a lot of E-Mobility issues (Directive 2019/944 on common rules for the internal market for electricity, Directive 2014/94 on deployment of alternative fuels infrastructure, Directive 2018/844 on the energy performance of buildings and energy efficiency, Directive 2018/2001 on the promotion of use of energy from renewable sources, Directive 2019/1161 on promotion of clean and energy efficient road transport vehicles),

but there is possibility for EU countries to introduce different national market models and describe the role of EV users, service providers, and charging points operators, role of regulator, EV tariff design etc.

Situation with Covid 19 pandemic could change the targets?

## **Legal aspects of E-Mobility**

# 2) Is there a National Action Plan on introduction of recharging infrastructure for EV in power in your country?

Two of ten participating NRAs (Greece and North Macedonia) reported that relevant authorities adopted National Action Plan on introducing recharging infrastructure for EV. In others Contacting parties such a plan doesn't existed, although the range of entities involved in construction and operation of charging infrastructure is very wide.

Comparison with the EU

Although in some EU countries ambitious National Action Plans are in place, situation with Covid pandemic postponed the targets and could change them, due to the economic consequences of the pandemic?

## **Legal aspects of E-Mobility**

## 3) Is there any state support scheme for purchasing EV or construction of recharging infrastructure?

Three NRAs reported that in their countries there is a state support scheme, while two NRAs reported that such schemes are under preparation.

State support schemes related E-Mobility are various, from purchase subsidy for EV buyers and tax advantage of EV owners to financial subsidy for building of recharging stations, free parking, etc.



#### **Regulatory aspects**



# 4) What are the present competences of your NRA regarding E-mobility?

Almost all NRAs (except North Macedonia) reported that regulator in their countries has no any role in E-Mobility issues.

The role of NRA in North Macedonia is to set connection costs for recharging infrastructure.

The E-Mobility is mostly transportation issue. But, through installation, connection to the grid and the operating of the charging infrastructure, will be part of the electricity system. This is why some elements of the E-Mobility, become NRAs responsibility. But having in mind that coordination of EV charging strategies should be through digital technologies(smart charging) in order to take full advantage of V2G opportunity, it could require regulatory cooperation on different levels-transportation, telecommunication, data security etc.

## **Regulatory aspects**



- 5) Is there any specific tariff for recharging EV?
- 6)Does a special market model exist in your national legislation or practice, which allows or disallows utility (DSO) ownership of recharging stations?

Answer on those two questions from all NRAs in EnC and Greece is no.

In BiH, DSO can own and operate recharging stations. In Greece market model on E-Mobility is not exist in national legislation or practice yet. The suggested model of the Greek Regulator Opinion (No 7) in 02/2019 is a 2-3 years pilot application of the free/competitive market model, replaced by the tender and concession model (locally) in case of lack of interest, replaced -in turn- by the DSO model in case of lack of interest (exit plan).

#### **Technical aspects**



## 7) How many EV (Battery Electric Vehicles + Plug-in Hybrid Electric Vehicles) were registered at the end of 2019?

#### 8) How many recharging points/stations of EV were constructed at the end of 2019?

All of participating NRAs reported some numbers of EV and recharging points which shows positive tendencies in introducing E-Mobility (except Albania which has no data). In case a government is committed to E-Mobility roll out and introduces supportive schemes the expansion of EV will follow immediately. The same is with charging points. The current ECs recommendation is 10 EV for each recharging point and least one fast recharger in every 40 km.

#### 9) Who is responsible for building publicly accessible recharging infrastructure for EV?

In practice there are a large scale of entities responsible for building recharging infrastructure. In one country it is DSO, one NRA reported state authorities, two countries owners of shopping malls, parking places, private companies, etc. But a lac of legislation and existing market model still remains the main problem in introducing recharging infrastructure.

#### **Technical aspects**

- 10) Is the V2G (Vehicle to Grid) concept under consideration in your national electricity system?
- 11) Are there any elements of V2G possibilities in operation?
- 12) Are there separate meters for EV home charging?

All participating NRAs gave negative answers on those tree questions.



#### **Conclusion and Recommendation?**

- Development of national legislation
- State support scheme
- New regulatory role necessary
- Introducing new technologies (smart metering, smart grid, digitalization, etc)
- Cooperation with another regulatory authorities-transportation, telecommunication, data security

