Seminar work

management of these stations. The last

Vaclav Tomicek

player is the users of electric cars, who

Applied game theory

use the created structure of charging

stations, which exists thanks to the first

1 Problem solved

three players.

The article deals with the problem of

As already outlined, the first three

construction of charging infrastructure

players create a cooperation agreement.

and its charging in urban residential

Thus, the government provides subsidies

areas for electric cars. The study focuses

that are drawn by both real estate

on the feasibility and overcoming this

agencies and charging station operators.

dilemma through various subsidy

Real estate agencies use these subsidies

incentive mechanisms and the sharing of

for the construction of stations and

economic benefits between

the

charging station operators, they use

government, charging infrastructure

subsidies to maintain services and

operators, real estate agents and electric

provide them to customers. Together,

vehicle users

themselves. Using

they form one large entity, to which real

evolutionary game theory, the authors

estate agencies bring the creation of

create a theoretical model based on

infrastructure and the operators provide

strategic interactions between various

recharging infrastructure

factors in supporting charging devices in

urban residential areas.

The authors used the evolutionary

theory of games, where 4 main players

2 How game theory was

perform. The first player is the

government, which provides subsidies

used

for electromobility and the construction

The authors used the evolutionary

of the necessary infrastructure. It also

theory of games, where 4 main players

oversees

companies and organizes

perform. The first player is the

electric car users. The government,

government, which provides subsidies

rather than the player, acts as a market

for electromobility and the construction

regulator by subsidizing all participants.

of the necessary infrastructure. It also

Other players are real estate agencies

oversees companies and organizes

and charging infrastructure operators. In

electric car users. The government,

this case, real estate agents should be

rather than the player, acts as a market

responsible for investing in charging

regulator by subsidizing all participants.

stations and selecting their location

Other players are real estate agencies

where these stations will be installed.

and charging infrastructure operators. In

Charging infrastructure operators are

this case, real estate agents should be

responsible for the operation and

responsible for investing in charging

management of these stations. The last

stations and selecting their location

player is the users of electric cars, who

where these stations will be installed.

use the created structure of charging

Charging infrastructure operators are

stations, which exists thanks to the first

responsible for the operation and

three players.

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