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A.T.1.4:

Assessment of possible low-cost infrastructure investments and developments

***PP12 – NEK INFORMATION ON THE STATE OF  
THE ISSUE IN THE SLOVAK REPUBLIC***

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## Profile of consumers in Slovak conditions:

- EK are connected to consumers, namely industrial enterprises mainly from SMEs
- The development situation of the consumer sector does not have impact on electromobility
- Estimated energy consumption in EC distribution is approximately 150,000 MWh per year.

## Technology / Infrastructure:

- RECs mainly use photovoltaics and related equipment on plots of land in the of municipalities.
- There is a connection of energy supplies from renewable energy sources for operational reasons to ensure technological stability also in connection with conventional energy sources from state networks
- The created and built EK are already capable of producing a capacity of up to 55 thousand MWh/year
- In addition to solar sources, the energy potential of RES is also in biofuels based on wood chips (for example, wood pellets and the like), and local heating systems in SME operations are also adapting to this.

## REC optimization

EK in Slovakia are at the beginning in terms of technical and financial possibilities in the field of energy storage technologies (battery storage, virtual power plants, etc.)

What is needed:

- demand tracking
- stability of the energy economy - absence and prevention of price and energy supply turbulences on the relevant market.

## REC costs

Investment incentives - subsidies received directly from SIEA only some EC members - producers of energy from RES in the amount of 50% of the investment budget and approx. 5 mil. €

The costs are 20% for operation and about 30% for investments in network and technology optimization.

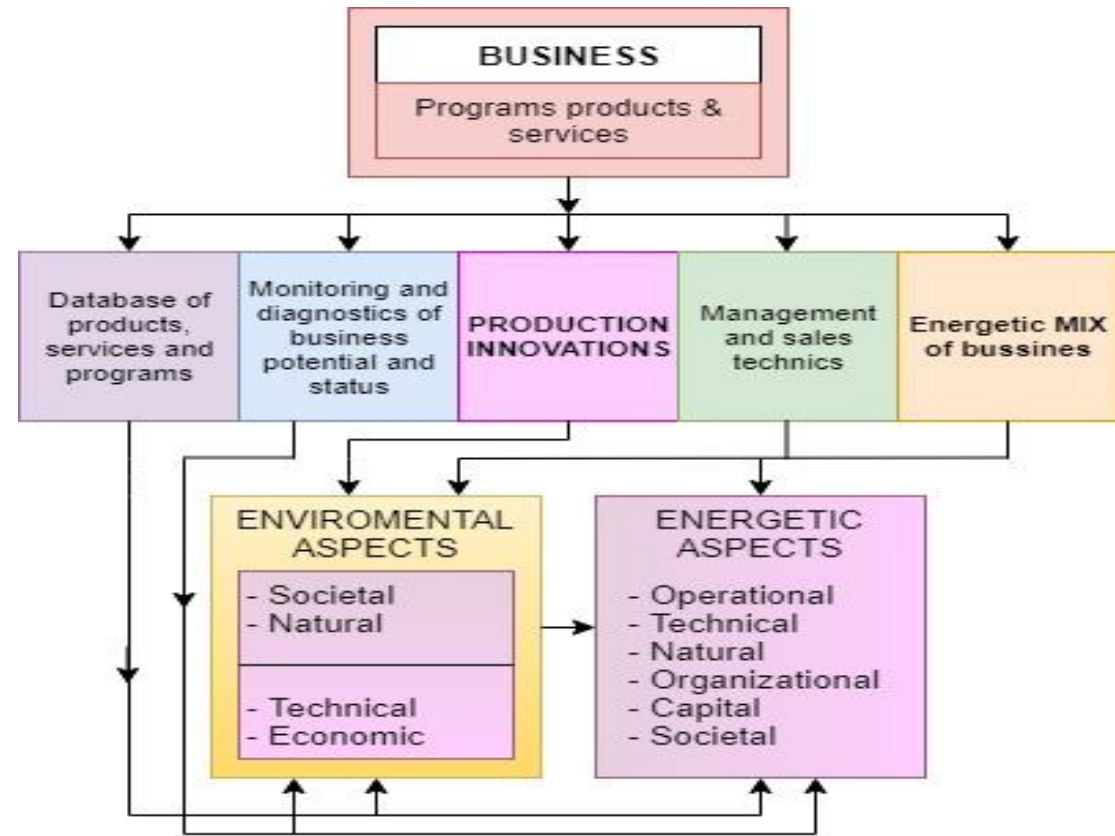
The costs in the EC are divided according to the ratio and planned energy consumption among EC members

Overall, however, support in the Slovak Republic is weak.

# Synergy of energy and environmental aspects of RES of industrial enterprises within the EC energy community and their management and organizational potential

This is an important understanding of the functioning of the industrial EC, whose main goal is the production of goods or services connected with the production of energy on the basis of RES and their distribution in the given region with the highest possible economic effect.

Although the need to take energy and environmental aspects into account is a realistically undesirable fact and limitation in production, it is, paradoxically, at the same time a necessary need for the growth of innovation potential and the success of sales on the market - the effect of synergy and interdependence without the possibility of neglecting any of these aspects for the survival of EC.



## **Advantages and disadvantages of REC:**

- Cheaper energy, support of ecology, individual possibility of combination of consumption and adequate independence from large central and state energy distributors
- Education and positive impact on customer awareness and needs
- However, the disadvantage is the need for own stable energy sources, preferably on the basis of RES, finances and professional personnel.

## **Conclusion:**

Currently, in the Slovak Republic, the state of EC development with the implementation of RES is stable, and state support for RES and legislation for EC are at a good level  
The reason for the further development of RECs is the need to unify and improve energy efficiency in the regions of Slovakia and the effort to achieve lower energy costs.

With gratitude

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