



About the development of the Smart Energy Efficient Technologies in the Eurasian Economic Union

Andrey Pantelev

Head of the Economic Policy Strategies Section
Macroeconomic Policy Department
Eurasian Economic Commission
pantelev@ecommission.org

Eurasian Economic Commission activities in the sphere of increasing energy efficiency



The EAEU Treaty (May 5th, 2014)

Key EAEU regulations



Strategic documents for the EAEU development
(2025-2030-2045)



EAEU technical standards
and regulations



Hydrogen energy



Eurasian technology platforms

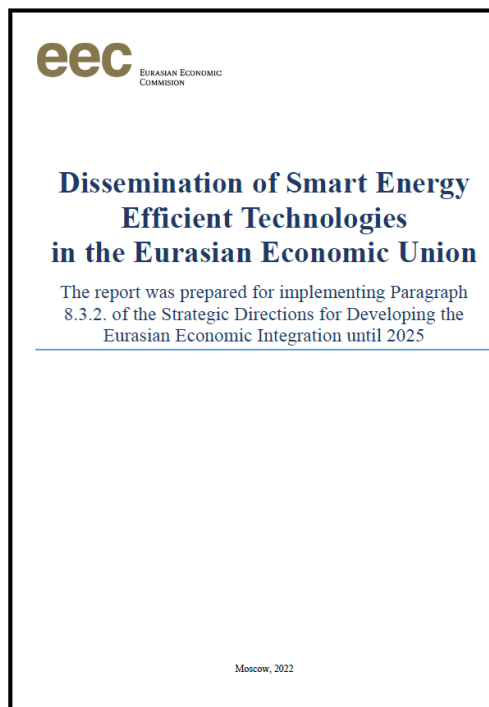


Electric vehicles
Eurasian electric bus (joint project)



Smart energy efficient technologies
(SEET)





To read the report
use QR-code:



The EEC official website:
<https://eec.eaeunion.org/en/>



Analysis of definitions of SEET in the legal framework of the EAEU countries



SEET and their characteristics, and main areas of application



Implementation of SEET in the third countries and the EAEU countries

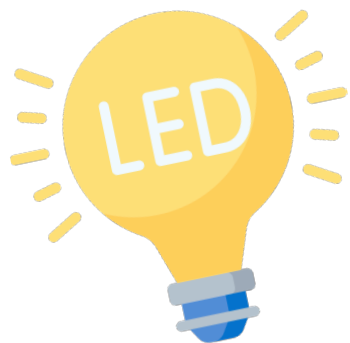


Prospective directions of SEET development in the EAEU



Smart Energy Efficient Technology

- an electronic (intellectual) system for controlling a technology and/or device operating procedure allowing to reduce energy consumption and/or energy losses while ensuring the level of useful effect (result) comparable with the effect (result) obtained without using such technologies and/or device operating procedures.



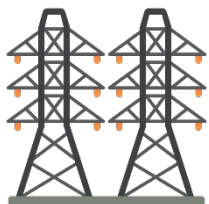
LED bulb
(energy efficient technology)



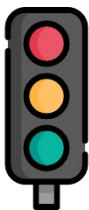
Motion detector
(smart technology)



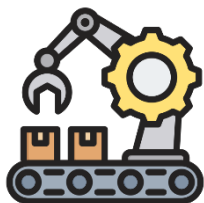
Smart energy efficient technology



Electrical services



Traffic and urban infrastructure

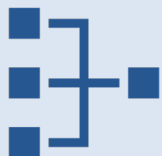


Industrial processes



Housing and utility system



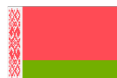


"SMART" ELECTRICAL NETWORK (Smart Grid)

is created by combining at the technological level electrical networks, consumers and producers of electricity into a single automated system



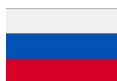
"Electric Networks of Armenia" plans to introduce automated electricity metering systems in the Republic of Armenia by 2025, within which "smart meters" will be installed at all consumers



5 large-scale automation projects for distribution electrical networks based on Smart Grid technologies were implemented, and the first digital substation of the 330 kV voltage class "Mogilev" was opened in the Republic of Belarus



The purpose of the "National Dispatch Center of the System Operator" is to ensure the reliable functioning of the Unified Electricity System of Kazakhstan, including through the introduction of Smart Grid



Smart Grid technologies are being actively implemented in a number of large cities (Moscow, St. Petersburg, Kazan)





"SMART" BUILDINGS AND PUBLIC INFRASTRUCTURE

involves the digitalization of household devices, their integration into a single network capable of both automatically maintaining optimal parameters and changing them by remote command



- ✓ **transfer of indications online**
- ✓ **reduction in operating costs**
- ✓ **reduction of losses in power networks**
- ✓ **improving the energy efficiency of equipment**





"SMART" TRANSPORT SYSTEM

is the integration of ICT with transport infrastructure, vehicles and users, focused on improving the safety and efficiency of the transport process



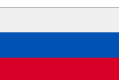
In Yerevan (Armenia) **"smart" traffic lights have been installed at 50 intersections.** Sensors detect the number of passing vehicles and automatically calculate the green light intensity



More than **100 thousand "smart" lights** have been installed in Minsk. The software allows you to control the flashlight remotely, set the brightness of the light at different times of the day, and the device also transmits technical data to the dispatch center

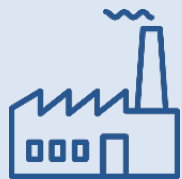


About **100 "smart" traffic lights** have been installed in Astana, as well as the "Sergek" intelligent video control system. The system monitors and fixes the traffic flow, as well as records violations on the roads



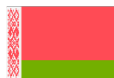
More than **100 thousand "smart" lamps** operate on the territory of the Russian Federation, and **"smart" traffic lights** have been installed in large cities of the country





"SMART" PRODUCTION

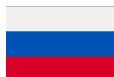
is an innovative approach to organizing the production of industrial products, focused on intelligent control of the production process



At the Novopolotsk Plant of Technological Metal Structures, it is planned to introduce a metal production technology for the of structures with multi-system integration of processes based on an **automated system for manufacturing blanks** with the functions of drilling, milling and plasma cutting in conjunction with 3D modeling.



At the Ust-Kamenogorsk titanium and magnesium plant a project is being implemented **to automate and control all stages of production**, which will allow issuing an electronic certificate with a confirmed production passport for manufactured products for their subsequent sale to large shipbuilding companies



At the Novolipetsk Iron and Steel Works, artificial intelligence helps a steelmaker introduce additional chemical elements into the steel composition during smelting. The key element of the created system is a **mathematical model based on machine learning algorithms** that predicts what the chemical composition will be like if certain materials are added at a particular point in time





Developing a legal framework to stimulate the use of SEET in the EAEU countries.



SEET implementation in the technical standards and regulations at the EAEU level, including in the areas of construction, housing and communal services.



Promoting the using of SEET in the development of joint cooperation projects in the EAEU.



Attracting private investment in SEET development.



Promoting SEET as part of measures to achieve the Sustainable Development Goals and introducing the principles of a “green” economy in the EAEU countries, implementing the EAEU’s climate action agenda.





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