

Session 4: «Designing Smart and Sustainable Urban Isles»

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Implementation of ENMS in municipal sector in North-West region in Russia



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City ENMS. Definition



The ENMS is the complex of technical and administrative measures, which aimed to reduce the energy consumption of municipal buildings (schools, hospitals, sport facilities, communal service and other public buildings):

Herewith ENMS provides:

- Analysis and monitoring of information about energy consumption for all municipal buildings in the city**
- Opportunity for City Energy Action Plan(CEAP) development**
- Constant control of consumed energy resources of each municipal building**
- A rapid response for changing energy parameters which goes from the buildings**

ENMS is a key and sustain element for Energy Efficiency in city scale



Common collaboration with local city and regional administrations in Pskov and Vologda regions

Nomination of regional energy manager positions within city administration and consultant support in terms of project planning and operation of this specialist

Integration of energy managers into the Coordination Committee for energy and energy efficiency

Development and implementation of a package of regulatory and administrative documentation, secure and fix the operation of energy managers on the level of city and regional coordination

Empowerment of energy managers in working with all participants of the current structure of the energy structure administration

Scope of task implemented in complex approach



Implementation of energy monitoring system as a pilot project technical solution

Implementation of “traditional” technical solution of energy monitoring system for municipal buildings

More than 40 municipal buildings in Pskov and Vologda region (pilot project)

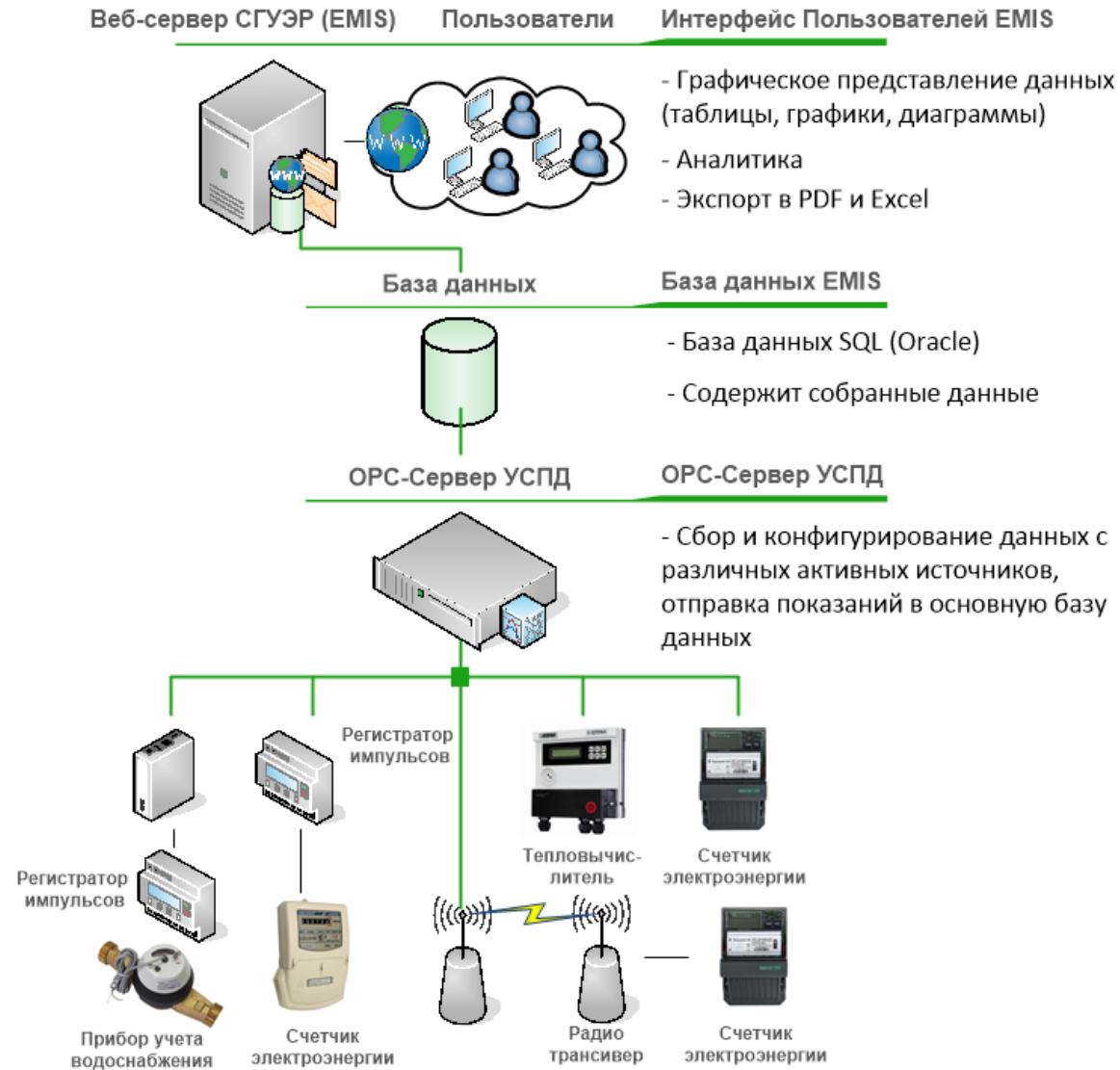
Purchase/installation of necessary server equipment. Integration a pilot energy monitoring solution to the server.

Purchase/installation procedure for necessary server equipment. Integration a pilot energy monitoring solution to the server.

Application of energy monitoring software EMIS (Croatia) as the main analytical tool for energy manager’s operation

Scope of task implemented in complex approach

Schematic view of proposed technical solution of energy monitoring





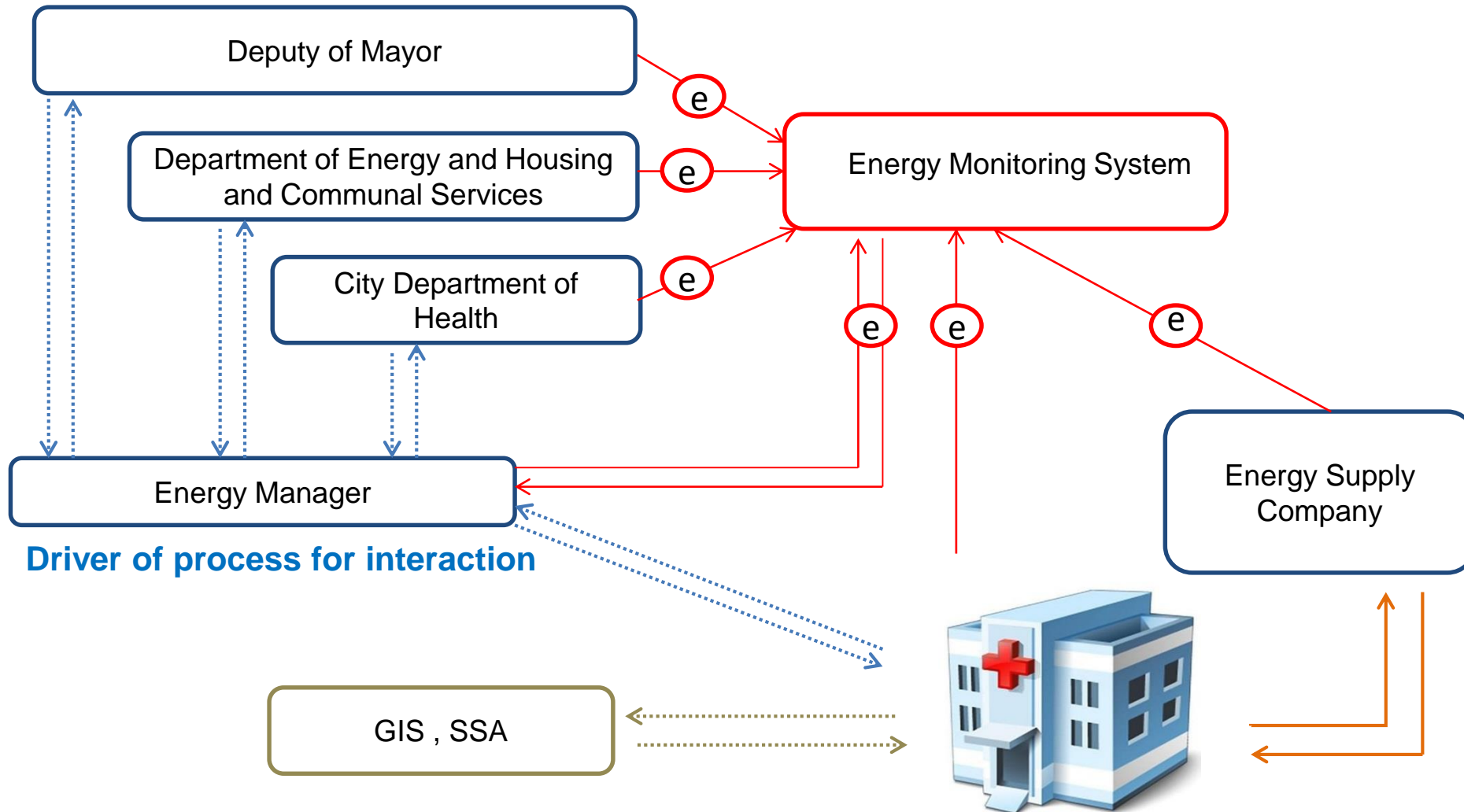
Development the algorithm of action for energy manager

- Analysis of current structure of existing city administrative structure in terms of energy use
- Preparation of CENMS methodology for mid and long term perspective (algorithm of action and related working plans)
- Development of methodology for CEAP development (municipal buildings)
- Train the trainers courses for energy managers (education of all participants of existing city administrative structure)
- Development pilot feasibility studies for municipal buildings as further methodology (more than 25)

Scope of task implemented in complex approach

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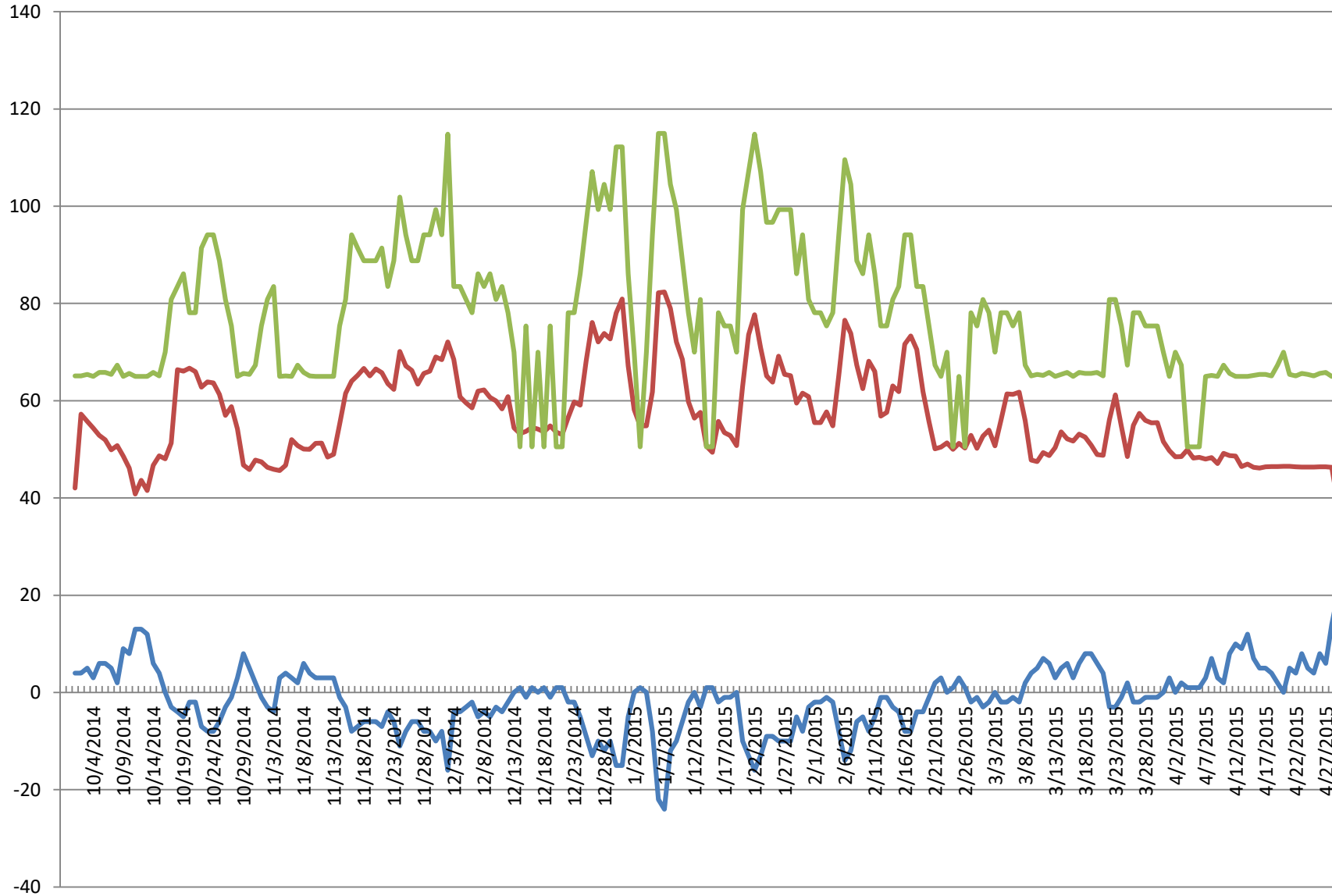
Technical and consultancy service provided in Pskov and Vologda regions



Only complex approach ensure the proper operation of CENMS !!!!

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Some practical points and lesson learned



- The absence of position of energy manager in Department of Energy and Housing and Communal Services due to local legislation
- No motivation and interest to reduce the energy consumption in municipal buildings for end users
- Most of the buildings are outdated and need into capital repair which leads to tremendous investment cost. Most cases are not attractive for private investors
- Difficulties to work with energy supply companies to gather energy data for energy management (integration of servers as a one online working system)
- The absence of unified automatic system of energy monitoring, collection and analysis of energy consumption (including global GIS)
- Weak technical equipment in municipal buildings (including meters)
- Absence of education on regular basis with end users (municipal buildings) in terms of energy/energy efficiency
- Lack of awareness and understanding situation by the city administration for the establishment of ENMS – the initial technical assistance needed



Thank you for your attention

