

WORLD SUMMIT

SMART ENERGY

RUSSIA

WORLD DIGITAL
SUMMIT ON
SMART ENERGY

26-27 MARCH 2019
EVENT HALL DANILOVSKY
MOSCOW

SUMMIT PROGRAMME



Digitalization



Distributed
Energy



Industrial
Energy



Energy and
Utilities



Energy efficient
Cities and Buildings



Energy Tech Hub

organizer

Redenex
Market research. Events. Business outsourcing

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Digitalization



Distributed Energy



Industrial Energy



Energy and Utilities



Energy efficient Cities and Buildings



Energy Tech Hub

- IoT | IIoT platforms
- Sensors and M2M
- IoT ecosystem
- Big Data and AI
- Machine and deep learning
- Cognitive computing
- Information cybersecurity
- Cloud and fog technology
- LPWAN / LoRaWAN / NB-IoT
- Digital twins

- Decentralized energy
- Smart grids
- Microgrids
- Network protection (cyber and physical security)
- Installations for res
- Integrating renewable energy sources
- Smart counters
- Energy storage systems (ESS)
- New markets
- New business models

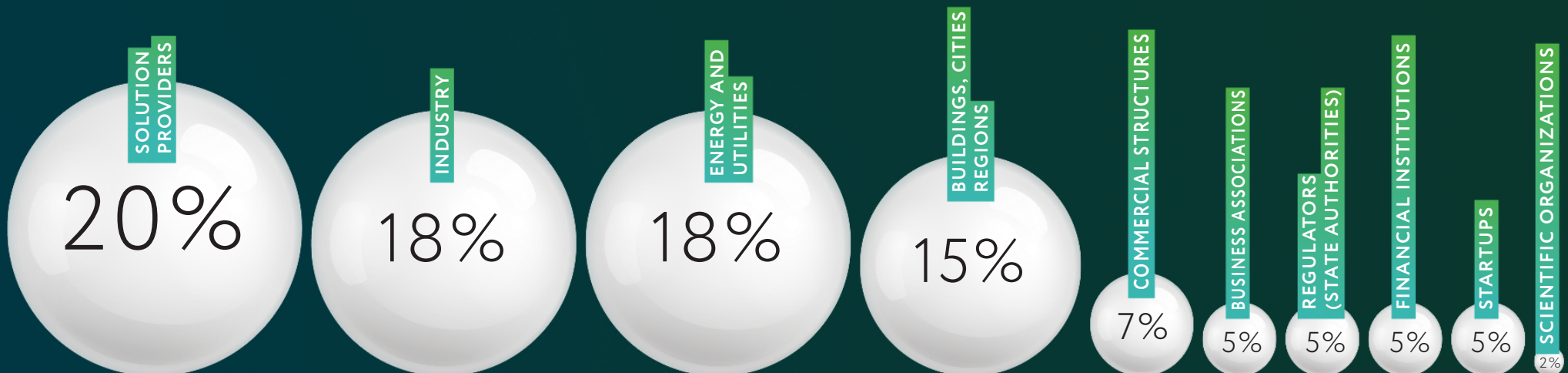
- Asset management
- Energy management of industrial enterprises
- Predictive analytics
- Predictive maintenance of equipment
- Automation and robotics
- Integrated control and monitoring systems
- End-to-end solutions
- Digital transformation

- Systems of interaction with the network of consumers
- Billing
- Blockchain technologies and smart contracts
- Strategies and practices for changing supply and demand
- Demand response
- Financial customer services
- Digital customer services
- Big data analytics in utilities
- Smart metering
- Control and accounting systems

- Smart city planning
- Resource and waste management
- Smart control and accounting systems
- Smart home solutions
- Building automation
- Energy of infrastructure facilities
- Electric vehicles
- Energy efficiency
- Smart lighting
- Heating and cooling systems

- Presentation of start-up on smart energy solutions
- Performances of visionaries
- Speeches of global vendors and developers
- Pitch sessions
- Hackathons
- Technological workshops and master classes

SUMMIT AUDIENCE



09:00–10:00 | Registration

GRAND HALL

09:00 | Check in. Welcome coffee. Ice-breaking session

10:00 | Opening: brief welcome.

Speaker

Olga Isakova – CEO of Redenex

**10:30 | Opening performances. The world of technological progress:
overview of global energy and cross-industry trends.
The role of advanced technologies. Changing market structure and ability
global leaders to adapt to transforming digital realities**

Speakers:

Oleg Dzioubinski – Keynote speaker, Regional Adviser, United Nations Economic Commission for Europe

Stephen Mellor – Keynote speaker, Chief Technology Officer, Industrial Internet Consortium, USA

Ernesto Ziorra – Keynote speaker, Head of the Enel Group's Innovability, Italy

12:00 | Lunch



Industrial Energy



Practice of implementation

Overcoming Barriers to investing in Energy Efficiency

The main findings of the joint UNECE/Copenhagen Centre on Energy Efficiency research Overcoming Barriers to Investing in Energy Efficiency, which looks into barriers to investing in energy efficiency and ways to overcome them. It brings to light valuable insights on the challenges and solutions for overcoming barriers to energy efficiency investments provided by practitioners working in the field. It looks in more detail into investment decisions in the industry sector, in particular what stimulates companies to make decisions to finance and implement energy efficiency measures and projects.

Speaker:
Oleg Dzioubinski, Regional Adviser, United Nations Economic Commission for Europe



Practice of implementation

Reducing the cost of electricity, the reconstruction of the lighting network facilities and the modernization of production

Speaker:
Vladimir Dozhdev, Ministry of Industry and Trade of the Russian Federation



Energy and Utilities



Strategic discussion panel

Big Data Analytics in housing: the importance of consumer data for energy companies



Practice of implementation

Billing: solutions for energy supply companies

Speaker:
Gero Bieser, SAP SE, Germany



Practice of implementation

Smart meters of heat and hot water - the experience of Almaty Heat Networks LLP

As part of the digitization program, the utility plans to purchase 2,500 metering devices. The appraisal will take place in several directions - the meters will be installed on highways, building-house networks and directly in apartments. In addition, the company plans to introduce a billing system to see the imbalance of consumption and supply of hot water.

Speaker:
Elmira Baychigasova, Almaty heat networks, Kazakhstan



Energy efficient Cities and Buildings



Practice of implementation

GrowSmarter: 12 smart solutions to reduce energy use by 60 %

- Improve the quality of life for European citizens by better mobility, housing and the quality of urban infrastructure while improving the citizens economy by lower energy costs and creating as much as 1500 new jobs (on the demonstration level).
- Reduce the environmental impact by lower energy needs by 60 % and increased use of renewable energy thus reducing GHG emissions even more.
- Create sustainable economic development by demonstrating and preparing a wider rollout of smart solutions

Speaker:
Gustaf Landahl, Environment and Health administration, Sweden



Practice of implementation

Infrastructure of the Moscow Region - electric transport

Speaker:
Leonid Neganov, Ministry of Energy of the Moscow Region



Practice of implementation

3SMART: Smart Building – Smart Grid – Smart City

The main objective of the 3Smart project is to provide a technological and legislative setup for cross-spanning energy management of buildings, grids and major city infrastructures in the Danube Region. It will provide optimal economical value to energy-efficiency and renewable energy investment in the building and at the same time it will result in optimized costs on the grid side.

Speaker:
Ivan Androcec, HEP Group, Croatia



Distributed Energy



Strategic discussion panel

Internet Of Energy: the practice of distributed energy. The potential of new markets and the development of new tools

Moderator:
Alexey Khokhlov, SKOLKOVO Energy Centre, Russia

Speakers:
Sergey Yesyakov, Energy Committee of the State Duma of the Russian Federation
Oleg Barkin, Association «NP Market Council», Russia
Evgeny Olkhovich, Rosseti, Russia
Maxim Balashov, RUSAL Global Management B.V., Russia
Kirill Sukov, NLMK
Alexander Starchenko, Energy Consumers Association, Russia
Olga Novoselova, NP «Distributed Energy», Russia
Ksenia Datsko, STC UPS, Russia



Practice of implementation

GridShare platform: the world's largest cluster of residential energy storage installations with 35 MWh across 3,500 homes in Japan

GridShare leverages the power of artificial intelligence to create customized charging plans for each customer on the network to maximize the savings based on their specific usage patterns. It takes into account the state of charge of the battery, energy usage habits, and even electric vehicle utilization to develop the plan.

Speaker:
Simon Daniel, Moixa Energy Holdings Ltd, UK



Practice of implementation

Electricity Markets and the Importance of Energy Technologies in optimal production

Speaker:
Andreas Pallis, Energy Engineer, MPhil Energy Technologies, University of Cambridge



Practice of implementation

Use and application of Solid State Accumulating Power Plant - TNPP

Speaker:
Nikolay Golubchikov, PJSC RusHydro, Russia

Coffee break



Strategic discussion panel

Energy Management of Oil and Gas Enterprises

Speakers:
Anton Veinblat, Zarubezhneft
Mikhail Golubev, SIBUR
Sergey Markov, Gazprom neft Lukoil *



Practice of implementation

Economic incentives for the development of own generation of industrial enterprises

Speaker:
Dmitry Pigarev, Gazprombank, Russia



Practice of implementation

Practice of installation of 7492 smart electricity metering devices Chelyabenergo

Modern meters installed in residential buildings, industrial facilities and citywide transmission lines. The sensors are protected from outside interference and adverse weather conditions (wind, rain, sunlight), they take into account the amount of electricity consumed as accurately as possible and automatically transmit data to the resource supplying company. At the same time, consumers themselves can quickly obtain current meter readings using the remote control. Data metering devices are stored in a single database.

Invited speakers:
Sergey Zolotarev, Chelyabenergo (MRSK-URAL)
Sergey Gusev, Rostelecom



Practice of implementation

The introduction of an energy management system. - Management company «Zhilkomservis»

Speaker:
Boris Melnichuk, Expert Council under the Government of the Russian Federation on Energy Efficiency Improvement, Russia



Strategic discussion panel

Reliable and flexible energy networks. Digital REB: key technologies

Speakers:
Fedor Opadchiy, System Operator of the United Power System, Russia
Evgeny Olkhovich, Rosseti

Coffee break



Technological session

Smart lighting control systems to solve the following problems:

- High power consumption
- Road safety
- Monitoring the warranty obligations of manufacturers of LED lamps
- Detection of illegal connection to the network of street lighting
- Predictability for investors in energy service contracts

Invited speakers:
Philips Lighting
Softline
Cisco



Practice of implementation

Towards Autonomous City Energy Systems with Distributed Intelligence

Smart cities demand intelligent energy systems with multiple computing layers and flexible networking. The speech describes city level architecture with independent examples on smart buildings and new wave energy solutions

Speaker:
Ville Mickelsson, Accenture, Finland



Practice of implementation

Pilot project «Rostelecom» to create a «smart city»: the introduction of «smart solutions»

Video monitoring, Smart intercom, Smart lighting, Digital accounting of utility resources. Creating a digital platform «smart city».

Speaker:
Alexander Glazkov, Administration of the Satka District

Coffee break



Practice of implementation

Microgrids: practical use and management technology - the experience of Greece

Speaker:
Nikos Hatziaargyriou, Hellenic Electricity Distribution Network Operator, Greece



Practice of implementation

New business models for energy storage

Users and energy generators are adapted to the new technologies of energy storage and use. What opportunities for market players and promising business models does the UK use today: Open Energi cases.

Speaker:
David Hill, Open Energi, UK



Practice of implementation

Secondary Renewables

Speaker:
Yulia Zvorykina, Vnesheconombank, Russia



Practice of implementation

Intellectual networks and new opportunities for regional development in Russia

Speaker:
Valery Seleznev, State Duma Committee on Energy, Russia



Practice of implementation

Wind park of the Ulyanovsk region

Speaker:
Sergey Vasin, Ulyanovsk Region Development Corporation, Russia



Practice of implementation

Automated information system «energy efficiency of oil and gas enterprises» as a tool for energy management system

Speaker:
Anton Veinblat, Zarubezhneft, Russia



Practice of implementation

Efficient use of energy storage systems in production

Speaker:
Igor Ryapin, Energy Community, Russia



Practice of implementation

Own generation in the production

Speaker:
Vladimir Tupikin, SIBUR, Russia

Break



Practice of implementation

The practice of effectively reducing energy costs. Implementation of an energy saving program at MMK

Speaker:
Danila Tselikanov, MMK, Russia

Break



Practice of implementation

The project «digital REB». The direction of «reliable and flexible grids» Sevastopolenergo

- Increasing the reliability and quality of electricity supply to consumers.
- Reducing the loss of electrical energy to a reasonable technical level.
- Simplify consumer access to the power grid infrastructure.
- Optimize the total cost of ownership of the system life cycle.
- The development of new markets for consumer services.
- Leading infrastructure upgrades while maintaining tariff levels

Invited speaker:
Alexey Chaly, Smart Electric Networks LLC, Tavrida Electric Group, Russia



Practice of implementation

Intelligent cells of the step-down substation

Speaker:
Sergey Komarov, Severstal, Russia



Practice of implementation

Data-driven planning of geothermal district heating - The case of the The Hague

Speaker:
Rob Geldhof, Overmorgen, The Netherlands

Break



Strategic discussion panel

Smart and waste management

Invited speakers:
IBM
Compolgy
Bigbelly



Practice of implementation

Strengthening the information and statistical base for monitoring and managing energy efficiency processes in all sectors of the economy of the city of Moscow

Speaker:
Alexey Chukarin, Moscow Department of Information Technologies



Practice of implementation

Projects for the development of digital electrical network in the streets

Speaker:
Andrei Maximov, Department of Electric Power Industry Development of Russia



Practice of implementation

Energy Management in Municipalities

Speaker:
Yury Melnikov, SKOLKOVO Energy Centre

Break



Practice of implementation

How do I Establish a Successful Smart Energy Project?

The smart energy is wide and very deep—from the physical assets in the field to the sensors and actuators, through connectivity, data management the cloud and business. So you need to establish a centre of excellence and have targeted actionable access to the information you need without years of study. This presentation outlines these issues and points to resources that will help you establish a successful smart energy project.

Speaker:
Stephen Mellor, Industrial Internet Consortium, USA



Practice of implementation

Future of Energy - clean & affordable electricity from ocean and sea waves

Eco Wave Power has developed proprietary technology for extracting energy from ocean and sea waves and converting it into electricity. Such technology enables to deliver effective, sustainable, practical, feasible, and affordable wave energy solutions, which are responsive to the needs of local communities, cities, and countries worldwide.

Speaker:
Inna Braverman, Eco Wave Power, Israel



Practice of implementation

The development of autonomous energy in the framework of the Arctic Program MIPT

Speaker:
Yury Vasiliev, Institute of Arctic Technologies MIPT

Break



Practice of implementation

Tests of telecontrol modes of operation of the Buribaevsky solar power station from the control center

Speaker:
Andrey Apeev, Bashkir RDA of JSC SO UES, Russia



Practice of implementation

What are the production benefits of implementing the concept of Digital Twins? NLMK Experience

Speaker:
Kirill Sukov, NLMK, Russia



Practice of implementation

End-to-end industrial energy management solutions



Technological session

Solutions for accurate diagnostics of power systems

Invited speaker:
GE



Practice of implementation

Master Class. Discovering digitalization: a practical guide for top management of companies in the energy sector. Technology effective management

Speaker:
Andrei Makarov, Center for Energy Technologies, Russia



Practice of implementation

Optimization and automation of data collection, readings from metering devices and the calculation of consumer obligations

Speaker:
Andrey Antonov, GlavEnergoSbyt, Russia



Practice of implementation

Innovation for Clean Growth: A whole systems approach to local energy management across heat, power and transport.

An overview will be given of the innovation challenges that are being focussed on to support low carbon growth of the UK economy. In more detail it will be discussed why designing energy systems which integrate heat, power and transport technologies can lead to more prosperous clean energy communities, with description of Innovate UK projects that are leading the way.

Speaker:
David Richardson, Innovate UK, United Kingdom



Practice of implementation

Automated control system for outdoor lighting in rural areas

Speaker:
Alexander Mazurkevich, Grodnoenergo



Practice of implementation

Experience of using trolleybuses with increased autonomous travel or electric buses with dynamic charging

Speaker:
Vasily Ostryakov, St. Petersburg State Unitary Enterprise Gorelektrotrans



Practice of implementation

Implementing Green Smart Technologies in the Housing Sector

Speaker:
Irina Gentsler, Institute for Urban Economics



Innovative dialogue

Renewable energy as a trend of new energy

Invited speakers:
International Renewable Energy Agency (IRENA)
Vladimir Sidorovich, Institute for Energy-Efficient Technologies in Construction, Russia
IKEA Group
Amazon
Oleg Shutkin, HEVEL
Olga Bykova, SOLAR SYSTEMS
Yuri Eroshin, Fortum
Egor Grinkevich, Vetroogk



Practice of implementation

The state of affairs and development prospects of distributed generation in Russia and the world

Speaker:
Olga Novoselova, NP «Distributed Energy»



Practice of implementation

Energy system flexibility and innovation to facilitate the integration of renewable energy

Speaker:
Thomas Nikolakakis, IRENA, Germany



Practice of implementation

Efficient functioning of the power system - the experience of «Belenergo»

Modernization of thermal power plants, projects on the use of renewable energy sources, the supply of electrical equipment, the introduction of solutions for the stable operation of the network, transmission and distribution of energy, as well as the creation of peak-backup and other energy sources in the Republic of Belarus.

Speaker:
Pavel Drozd, Belenergo, Belarus

HALL 1

HALL 2

HALL 3

GRAND HALL



Industrial Energy



Practice of implementation

Energy management of industrial enterprises

Invited speakers:
ROSTEC
Eurosibenergo



Practice of implementation

Corporate ERP-system, bus integration with MES-level applications, BI systems and electronic document management

Speaker:
Maxim Matosov, SUEK, Russia



Technological session

Predictive analytics and predictive equipment maintenance

Invited speakers:
Rotek
Emerson



Energy and Utilities



Practice of implementation

Digital energy sales: IoT solutions as the basis for reducing energy costs

Speaker:
Sergey Emelyanov, Transneftenergo



Practice of implementation

Energy sales as an aggregator of demand response in the retail

Speaker:
Natalya Nevmerzhitskaya, Guaranteed Suppliers of Power Sales Companies, Russia



Practice of implementation

Cost Management and Profitability for the Digital Economy

Invited speaker:
Enerjisa, Turkey



Energy efficient Cities and Buildings



Practice of implementation

Powering Tomorrow: Amsterdam scores for sustainability

The Johan Cruyff Arena, home of Dutch football team Ajax, has installed the system of 148 Nissan LEAF batteries, which is able to store enough energy to supply 7,000 households in the city for one hour.

Speaker:
Francisco Carranza Sierra, Renault-Nissan Energy Services, France



Practice of implementation

Energy cost optimization - a joint project of Schneider Electric and AUCH Retail Russia

As part of the project, it is planned to introduce an energy accounting system that will affect 87 hypermarkets of the AUCHAN network and 173 supermarkets of the ATAK chain. The goal is to analyze the possibility of optimizing each object in order to revise the tariff plan of the networks and correct the operating hours of the equipment.

Speaker:
Oleg Ignashin, AUCHAN



Practice of implementation

Smart energy efficiency: new urban solutions

Speaker:
Irina Ilyina, HSE



Digitalization



Innovative dialogue

IoT and digital platforms. Cyber-physical systems as the basis of the digital economy

Speakers:
Alexander Starchenko, Community of Energy Consumers, First Imagine! Ventures
Valery Dzyubenko, Community of Energy Consumers
Nikita Utkin, RVK
Andrei Abramov, Forsight Foundation
Vladimir Knyagin, Center for Strategic Research



Practice of implementation

IoT and digital platforms for energy management of oil and gas enterprises

Speaker:
Sergey Markov, Gazprom Neft, Russia



Practice of implementation

Digital solutions and flexibility

How to leverage on demand side response to increase the flexibility in electricity grids and integrate more renewables, latest trends in digital solutions.

Speaker:
Andreoli Daniele, Enel X, Italy



Practice of implementation

Industrial energy. Problems and ways to reduce energy intensity in industrial enterprises and regions of Russia

Speaker:
Danir Zakirov, Association of Power Engineers of the Western Urals, Russia



Practice of implementation

The use of an automated control system for the distribution of electricity complex Yamal LNG

Speaker:
Alexander Sharygin, JSC Yamal LNG, Russia



Practice of implementation

Prediction of failures and optimization of energy consumption based on reading load profiles using external monitoring of electrical equipment in the network

Speaker:
Alexey Zotov, Kinetics LLC, Russia



Technological session

Financial technologies in consumer services

Speaker:
Gregory Melekhov, QIWI Russia



Practice of implementation

Systems of interaction with the network of consumers. Projects «Altaykrayenergo»

Invited speakers:
Sergey Prib, Altaykrayenergo Network Company, Russia



Pitching technological solutions

Telecoms solutions for the market of energy and utilities



Practice of implementation

Implementation of City Energy Management System in Pskov region in frame of UNDP project «Energy Efficiency in North West of Russia» - Accumulated experience and lesson learned

Speakers:
Vitaly Becker, UNECE
Andrey Dodonov, UNECE



Practice of implementation

Integrated solution for household control - Innopolis experience

MegaFon is implementing a pilot project of a "smart city" and plans to implement a comprehensive solution for controlling households in Innopolis. This implies the installation of gas, light and water meters for automatic metering of consumption without the need to fill in special receipts and documents, as well as monitoring the city's municipal fleet. Thus, the municipal economy of the city will be managed centrally and with minimal losses.

Speaker:
Ruslan Shagaleev, Mayor of the city Innopolis, Russia



Practice of implementation

Creating a «smart city» - the experience of the Ulyanovsk region

Smart roads, Smart parking, Smart street lighting, Smart heating systems, Automated intelligent power grid

Speaker:
Vadim Pavlov, Center for Cluster Development of the Ulyanovsk Region



Practice of implementation

Modernization of heat supply systems without increasing tariffs above inflation based on highly efficient generators with recovery of excess heat

Speaker:
Igor Skorodumov, GPB Energy Effect, Russia



Practice of implementation

Road maps to stimulate commercialization in the field of «cross-cutting» technology

Digital technologies based on their own enterprises, which can be used not only in nuclear energy, but also in other industries. Among the existing products: a digital platform Multi-D, created to manage the full life cycle of nuclear power plants and the process of capital construction of complex engineering facilities; mathematical modeling system for the physical processes of aero-, hydro- and gas dynamics, heat transfer and strength calculations "Logos", as well as the Digital Enterprise software package designed to manage the full life cycle of the production of large holdings and medium-sized enterprises.

Speaker:
Evgeny Osochenko, Rosatom, Russia



Technological session

E.ON Prototype Factory: Rethinking Business Through Digital Transformation

Invited speaker:
E.ON



Practice of implementation

Models of smart energy development in the agro-industrial sector

Speaker:
Roman Nuriev, InterAgro, Russia



Practice of implementation

Management of agro-industrial energy

Speaker:
Oleg Alexandrov, Rostselmash, Russia



Practice of implementation

Industrial robots FANUC - energy-saving models

The ROBOSHOT injection molding machine uses 70% less energy than hydraulic machines and 20% less than other electric machines.

Invited speaker:
FANUC Russia



Practice of implementation

Customer service of the electricity network company of Estonia Elering - «E-elering»

E-elering - is a portal for smart networks that stores all Elering electronic services, as well as applications from other energy service providers and provides access to data related to energy consumption.

Invited speaker:
Taavi Veskimägi, Elering AS, Estonia



Practice of implementation

Demand Response

Invited speakers:
VYGON CONSULTING
System Operator of the United Power System, Russia



Practice of implementation

Modular Energy Storage Systems (ESS)

Impact Clean Power Technology S.A. are using different cells format and building Battery Packs that have same mechanical enclosures and electrical interfaces. That allows system integrator to define required battery technology (NMC/LTO/LFP) and energy content.

Speaker:
Filip Jankun, Impact Clean Power Technology S.A., Poland



Practice of implementation

Hydrogen as an alternative fuel: domestic use

Hydrogen production in water electrolysis plants for electricity supply and subsequent use of Brown's gas in buildings: 1) for heating 2) for preparing hot water 3) for generating electricity.

Speaker:
Alexey Polyakov, Council for Environmental Construction, Russia



Practice of implementation

Energy centers of industrial parks

The developer of industrial parks DEGA equips parks in the Moscow Region, Tambov and Ulyanovsk with its own power centers of up to 30 MW

Speaker:
Valery Prokopovich, DEGA Development



Practice of implementation

Digital technologies in construction for a new quality of life

Speaker:
Dmitry Berezutsky, Association GreenStroy



Practice of implementation

The role of banks in the development of digital services for smart energy

Speaker:
Mikhail Matveyev, VTB, Russia



Practice of implementation

Rating of digitalization of power companies in the power industry in Russia

Speaker:
Anastasia Perdero, SKOLKOVO Energy Center, Russia



Practice of implementation

Towards Building Smart Energy Systems in Sub-Saharan Africa: A Conceptual Analytics of Electric Power Consumption.

Speaker:
Elisha Olatunji David, ASCIF, Africa



Practice of implementation

Trends of digitalization of Russian energy companies. Susceptibility to IoT / AI

Moderator:
Tatyana Mitrova, SKOLKOVO Energy Centre, Russia

Invited speakers:
Alexander Haytin, AI Mechanica
Andrey Belevtsev, Gazprom Neft
Vladimir Aronchik, Rosatom