

ESG|2021

VII International Conference
and the exhibition

ENVIRONMENTAL SAFETY IN GAS INDUSTRY

December 7–8, 2021
Moscow, Gazprom VNIIGAZ LLC



PROGRAM

Partner



SCHEDULE

of the VII International Scientific and Technical Conference “Environmental Safety in Gas Industry” (ESGI-2021)

Razvilka

Gazprom VNIIGAZ LLC

07 December 2021, Tuesday

8.40–9.00	Gathering of the conference participants	Milan Hotel
9.00–10.00	Registration of the conference participants and guests. Receiving presentations. Communications test, setting up remote access, test connection	1 st floor, Block “E” Workplaces of speakers and participants
10.00–12.00	Plenary Session	Room 302, 3 rd floor, Block «E», broadcast to rooms 204 (Block “E”), 213 (Main building)
12.00–12.30	Visiting the exhibition	3 rd floor, Block “E”
12.00–12.30	Break	
12.30–13.30	Plenary Session	Room 302, 3 rd floor, Block “E”, broadcast to rooms 204 (Block “E”), 213 (Main building)
13.30–15.00	Break	
15.00–16.40	Plenary Session	Room 302, 3 rd floor, Block “E”, broadcast to rooms 204 (Block “E”), 213 (Main building)
9.30–16.30	Exhibition of advanced technologies and equipment for metering energy consumption and automated systems for monitoring the impact on the environment components	3 rd floor, Block “E”

08 December 2021, Wednesday

8.20–8.40	Gathering of the conference participants	Milan Hotel
8.20–9.00	Receiving presentations. Communications test, setting up remote access, test connection	Block “E” Workplaces of speakers and participants
9.00–11.15	Technical Panel A Ensuring Environmental Safety: Problems, Ways and Means of Solution	Room 302, 3 rd floor, block “E”, broadcast to room 204 (Block “E”)
9.00–10.30	Business breakfast: «Pilot Projects for the Production and Use of Hydrogen from Natural Gas of PJSC Gazprom» (by-list-only event)	Room 203, 2 nd floor, Block “E”
11.20–11.30	Break	
11.30–13.00	Technical Panel E Biotechnologies: Status and Prospects for the Development in the Fuel and Energy Sector	Room 302, 3 rd floor, Block “E”, broadcast to room 204 (Block “E”)
11.30–13.00	Technical Panel D Energy Efficiency and Energy Conservation: Evolution Solutions of Energy Conservation and Increase of Energy Efficiency	Room 203, 2 nd floor, Block “E”
13.00–14.00	Break	
14.00–15.45	Technical panel with representatives of environmental services of Gazprom Group’s subsidiaries on regulatory and methodological control of environmental protection activities (by-list-only event)	Red Hall, Main Building, 213
14.00–15.45	Technical Panel D (continued) Energy Efficiency and Energy Conservation: Evolution Solutions of Energy Conservation and Increase of Energy Efficiency	Room 203, 2 nd floor, Block “E”

14.00-15.45	Technical Panel B/C Climate Risks and the Low-Carbon Economy – New Challenges for the Industry. Prospects for the Hydrogen Energy Development	Room 302, 3 rd floor, block “E”
15.45-16.00	Break	
16.00-18.00	Technical Panel B/C Climate Risks and the Low-Carbon Economy – New Challenges for the Industry. Prospects for the Hydrogen Energy Development	Room 302, 3 rd floor, block “E”
9.00-17.00	Exhibition of advanced technologies and equipment for metering energy consumption and automated systems for monitoring the impact on the environment components	3 rd floor, Block “E”
18.15	Departure of the conference participants	Central entrance Block “E”

PROGRAM

of the VII International Scientific and Technical Conference “ENVIRONMENTAL SAFETY IN GAS INDUSTRY” (ESGI-2021)

Razvilka

Gazprom VNIIGAZ LLC

7 December 2021, Tuesday

PLENARY SESSION

(Room 302, Block “E”)

Chairperson:

Oleg Yevgenyevich Aksyutin –
Deputy Chairman of the Management Board –
Head of the Department, PJSC Gazprom

Co-chairs:

Aleksandr Gavrilovich Ishkov –
Deputy Head of the Department – Chief of the Directorate,
PJSC Gazprom

Maxim Yuryevich Nedzvetskiy –
Deputy Head of the Department, PJSC Gazprom
General Director Gazprom VNIIGAZ LLC

9.00–10.00 **Registration of participants, receiving presentations. Morning coffee**
(1st floor, block “E”)

10.00–10.20 **CONFERENCE OPENING**

Maxim Yuryevich Nedzvetskiy
(Deputy Head of the Department of PJSC Gazprom,
General Director of Gazprom VNIIGAZ LLC)

OFFICIAL GREETINGS

Oleg Yevgenyevich Aksyutin
(Deputy Chairman of the Management Board – Head of the Department,
PJSC Gazprom)

Olga Vladimirovna Plyamina
(General Director of the V.I. Vernadsky Non-Governmental Environmental
Foundation)

Reports

10.20 **P1** **A.G. Ishkov**
(PJSC Gazprom)
Topical issues of the environmental policy and climate agenda
Speaker – Aleksandr Gavrilovich Ishkov
(Deputy Head of the Department - Chief of the Directorate,
PJSC Gazprom)

10.40 **P2** **M.Yu. Nedzvetskiy**
(PJSC Gazprom, Gazprom VNIIGAZ LLC)
Environmental safety and energy efficiency of Gazprom:
new developments of VNIIGAZ
Speaker – Maxim Yuryevich Nedzvetskiy
(Deputy Head of the Department of PJSC Gazprom,
General Director of Gazprom VNIIGAZ LLC)

11.00 **P3** **R.S. Panov**
(Gazprombank, JSC)
Contribution of project financing in implementation
of environment-oriented plans and BAT in the gas industry
Speaker – Roman Sergeevich Panov
(First Vice-President of Gazprombank, JSC)

11.20 **P4** **Antoine Half**
(Kayrros&Senior Scholar)
Role of natural gas in general and Russian gas in particular
in low-carbon economy
Speaker – Antoine Half
(Founder and Chief Analyst at Kayrros&Senior Scholar)

11.40 **P5** **N.A. Yeremin**
(RAS Oil and Gas Institute)
Digital global decarbonization of gas production
Speaker – Nikolay Aleksandrovich Yeremin
(Chief Researcher, RAS Oil and Gas Institute)

12.00-12.30 Break

12.30

P6 N.D. Rogalev

(FSEI HE “NRU “MPEI” - Federal State-Funded Educational Institution of higher education «National Research University»)

Natural gas hydrogen in the modern energy industry

Speaker – Nikolay Dmitrievich Rogalev (Rector)

12.50

P7 S.A. Roginko

(Institute of Europe, RAS, Financial University under the Government of the Russian Federation)

The Paris Agreement and revenues of the Russian FEC: Glasgow take-aways

Speaker – Sergey Anatolievich Roginko

(Head of the Center for Ecology and Development, Institute of Europe, Russian Academy of Sciences)

13.10

P8 L.I. Tverdokhlebov

(Member of the Expert Councils of the State Duma Committee on Energy and the Federation Council Committee on Economic Policy, Chairman of the Commission of the Russian Academy of Natural Sciences for Implementation of Innovative Technologies, Corresponding Member of the Russian Academy of Natural Sciences, Member of the Oil and Gas Subcommittee of the Global Methane Initiative international organization)

Tasks to reduce the flaring and process losses of hydrocarbon gases aimed at Russia's implementation of the terms of the Paris Agreement

Speaker – Leonid Ivanovich Tverdokhlebov

13.30–15.00 Break

15.00

P9 A.Yu. Nedre

(FSBI State R&D Institute of the Industrial Ecology)

Assignment of quotas for emissions on the basis of summary estimates: core principles and plans for introduction in the Russian Federation

Speaker – Andrey Yurievich Nedre

(Director, Honoured Ecologist of Russia)

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- 15.15** **P10** **M.M. Dygan**
(FSBI Russian Energy Agency (REA),
Ministry of Energy of the Russian Federation)
State policy on greenhouse gas limitations in FEC
Speaker – Mikhail Mikhailovich Dygan
(Director of the project)
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- 15.30** **P11** **A.L. Maksimov**
(A.V. Topchiyev Institute of Petrochemical Synthesis, RAS)
Hydrogen: methods of production and role in low-carbon
economy
Speaker – Anton Lvovich Maksimov
(Director, Professor, Corresponding Member of RAS)
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- 15.45** **P12** **Yu.A. Dobrovolsky**
(Institute of Problems of Chemical Physics of RAS)
Hydrogen energy and hydrogen technologies: problems
and prospects
Speaker – Yuri Anatolyevich Dobrovolsky
*(Group leader of the Competence Center for New and Mobile Energy
Sources Technologies)*
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- 16.00** **P13** **N.B Pystina**
(Gazprom VNIIGAZ LLC)
Carbon regulation in the Russian Federation: challenges
and opportunities
Speaker – Natalya Borisovna Pystina
*(Head of the Corporate Scientific and Technical Center
for Environmental Safety and Energy Efficiency)*
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- 16.15** **P14** **V.B. Lukin**
(KPMG)
Model for the regulation of greenhouse gas emissions
in the Russian Federation in keeping with the international
initiatives to mitigate climate change consequences
Speaker – Vladimir Borisovich Lukin (KPMG CIS Partner)
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16.30

P15 A.N. Pronin

(FSUE D. I. Mendeleev Institute for Metrology)

Measuring the carbon footprint: problems and solutions

Speaker – Anton Nikolaevich Pronin

*(Acting General Director of FSUE D. I. Mendeleev
Institute for Metrology)*

16.45

P16 A.I. Nakhutin

(FSBI «Y.A. Izrael Institute for Global Climate and Ecology»)

New and updated national emission factors to estimate CH₄
emissions from natural and associated gas operations

Speaker – Aleksandr Ilyich Nakhutin

(Head of the department)

8 December 2021, Wednesday

Technical Panel A
Ensuring Environmental Safety:
Problems, Ways and Means of Solution

Moderators:

Sergey Vladimirovich Konyaev

(Deputy Head of the Directorate – Head of the Division of PJSC Gazprom)

Aleksandr Vladimirovich Terebnev –

(Deputy Head of the Corporate Scientific and Technical Center for Environmental Safety and Energy Efficiency of Gazprom VNIIGAZ LLC)

(Room 302, Block “E”)

09.00-11.20 Reports and presentations

09.00

A1 Sergey Vladimirovich Konyaev

(Deputy Head of the Directorate – Head of Division of PJSC Gazprom)

«Regulatory guillotine»: what has changed

09.15

A2 Yulia Nikolaevna Vlasenko

(Head of the Environmental Protection Department of Gazprom dobycha shelf Yuzhno-Sakhalinsk LLC)

Ensuring environmental safety at the operated facilities of Kirinskoye GCF

09.30

A3 Mikhail Valerievich Bayukin

(First Deputy Executive Director of DIEM SPF LLC)

Effective solutions to the challenges of creating automatic engineering-based monitoring systems

09.45

A4 [Alexei Vasilyevich Tolstykh](#)

(Deputy General Director of JSC Neftegazavtomatika)

System of automatic control of pollutant emissions. Practical implementation of the federal legislation requirements to ensure environmental safety control at enterprises of the fuel and energy complex of the Russian Federation

10.00

A5 [Aleksandr Aleksandrovich Makarov](#)

(General Director of ECAT JSC)

Experience and prospects of using the system of nitrogen oxides selective catalytic reduction in exhaust gases of gas compressor units

[Aleksandr Petrovich Chalyi](#)

(Chief specialist of Gazprom VNIIGAZ LLC Environmental Protection and Resource Saving laboratory)

Unified design solution and using the system of nitrogen oxides selective catalytic reduction in exhaust gases of gas compressor units

10.15

A6 [Konstantin Levonovich Unyan](#)

(Head of Geoecological Research and Environmental Monitoring Laboratory of Gazprom VNIIGAZ LLC)

Assessment of possible environmental impacts of process liquid spills (methanol, MEG).

[Yulia Yurievna Petrova](#)

(Deputy Head of the Laboratory for Regulatory and Methodical Support of Safety and Accident Risk Analysis for Hazardous Industrial Facilities of Gazprom VNIIGAZ LLC)

Modeling of process liquid accident spills impact on ecosystems during operation of the subsea production unit at the Kirinskoye gas condensate field

10.30 **A7** **Larisa Vladimirovna Soldatova**
(Associate Professor, Deputy Head of the Department, National Research University “Higher School of Economics”, Deputy Editor-in-Chief of CJSC Scientific and Technical Center for Research on Industrial Safety Problems, Monthly Scientific and Production Journal “Occupational Safety in Industry”)
Environmental regulation in ensuring the safety of economic activity: a rather-legal analysis

10.40 **A8** **Lyubov Alexandrovna Mityaeva**
(Research Associate of the Environmental Protection and Resource Saving Laboratory, Gazprom VNIIGAZ LLC)
Regulatory environmental protection documents for PJSC Gazprom transition to the principles of technological standardization using the best available technologies

10.50 **A9** **Valeriya Vadimovna Morokishko**
(Head of the Department, FSAI R&D Institute “Center for Environmental Industrial Policy”)
Integrated environmental permits and environmental performance improvement projects: topical issues of proposal formulation

11.00 **A10** **Aleksandr Grigorievich Berdnik**
(Leading Research Associate of the Laboratory of Protection against Physical Impacts, Gazprom VNIIGAZ LLC)
Noise Reduction at Control and Distribution Stations of Trunk Gas Pipelines

11.10 **A11** **Sergey Anatolievich Kapitanov**
(Engineer of the Power Equipment Sales Department, Rolls-Royce Solutions RUS LLC)
Current environmental standards for DGU (diesel-generator units), their practical applicability at present and in the future

11.20-11.30 Break

Technical Panel E

Biotechnologies: Status and Prospects for the Development in the Fuel and Energy Sector

Moderators: **Nikolay Sergeevich Khokhlachev** –
Head of the Biotechnological Research Laboratory
of the Corporate Scientific and Technical Center for Environmental
Safety and Energy Efficiency, Gazprom VNIIGAZ LLC

Olga Petrovna Chervyakova -
Chief Research Associate of the Biotechnological Research
Laboratory of the Corporate Scientific and Technical Center for
Environmental Safety and Energy Efficiency, Gazprom VNIIGAZ LLC

(Room 302, Block “E”)

11.30-13.00 Reports and presentations

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|--------------|---|
| 11.30 | E1 Nina Borisovna Gradova
(D.Sc. (Biology), Professor, USSR State Prize Winner, FSBEI HE
D.I. Mendeleev University of Chemical Technology Metrology)

Status and prospects of single-cell protein production from
hydrocarbon feedstock |
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| 11.45 | E2 Victoria Aleksandrovna Semenova
(Junior Research Associate, Biotechnology Research Laboratory,
Gazprom VNIIGAZ LLC)

Technology development for producing feed protein from natural gas |
| <hr/> | |
| 11.55 | E3 Sergei Vladimirovich Kalyonov
(D.Sc. (engineering), Associate Professor, Biotechnology
Department, FSBEI HE D.I. Mendeleev University of Chemical
Technology Metrology)

Application of methylotrophic microorganism communities
for feed protein production |
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12.05 **E4** **Dmitry Anatolievich Skladnev**
(D.Sc. (Biology), Professor, Chief Researcher,
Laboratory of Microbial Survival, FSI FRC «Fundamental Bases
of Biotechnology» RAS)
Innovative approach of targeted identification of active
communities and pure cultures of microorganisms for solving
technological problems

12.15 **E5** **Andrey Nikolaevich Epov**
(Member of the expert group,
Ministry of Construction of the Russian Federation)
Analysis of the operability of existing low-capacity facilities

12.25 **E6** **Yuri Aleksandrovich Nikolaev**
(FRC «Biotechnology», RAS, D.Sc. (Biology),
Head of the Laboratory)
New biotechnology for wastewater treatment using the Anammox
microbial community

12.35 **E7** **Daniil Igorevich Sakayan**
(Junior Research Associate, Biotechnology Research Laboratory,
Gazprom VNIIGAZ LLC)
The use of «Biostok» as an alternative method of operation
of low-load wastewater treatment plants

12.45 **E8** **Nikolay Sergeyeovich Khokhlachev**
(Head of Biotechnology Research Laboratory,
Gazprom VNIIGAZ LLC)
Microbiological Corrosion – an underestimated danger for fuel
and energy complex

13.00–14.00 Break

Technical Panel D

Energy Efficiency and Energy Conservation: Evolution Solutions of Energy Conservation and Increase of Energy Efficiency

Moderators:

Dmitry Vladimirovich Kosachev –
Head of the Technical Department
Gazprom Transgaz Yugorsk, LLC

Georgy Anatolievich Khvorov –
Head of the Energy Conservation and Energy Efficiency Laboratory
of the Corporate Scientific and Technical Center for Environmental
Safety and Energy Efficiency,
Gazprom VNIIGAZ LLC

(Room 203, Block “E”)

11.30-13.00 Reports and presentations

11.30 **D1** **Vladimir Aleksandrovich Shchurovsky**
(Leading Research Associate, Laboratory of the Process
Equipment of Compressor and Gas Distribution Stations,
Gazprom VNIIGAZ LLC)

Methodological approaches to assessment of power
and technological state of gas trunk pipelines

11.45 **D2** **Dmitry Georgievich Leshan**
(Environmental Protection Site Manager,
Gazprom Dobycha Urengoy LLC)

Energy efficient technologies to reduce pollutant emissions
into the atmospheric air at Gazprom dobycha Urengoy LLC

12.00 **D3** **Anatoly Konstantinovich Demin**
(Leading Research Associate, Institute of High-Temperature
Electrochemistry, UB RAS)

Energy efficient current sources based on solid oxide fuel cells

12.15 **D4** **Viktoria Vasilievna Voronova**
(Senior Research Associate, Gas and Gas Condensate Fields
Development and Operation Chair, PhD (Engineering),
Gubkin Russian State University of Oil and Gas)
Elaboration of cheap energy-saving turbine technologies for field
development

12.30 **D5** **Maria Konstantinovna Gulak**
(Leading Engineer, Gazprom Dobycha Noyabrsk LLC)
Development of the Automated System «Energy Conservation
and Energy Efficiency»

12.45 **D6** **Georgy Anatolievich Khvorov**
(Head of the Energy Conservation and Energy Efficiency
Laboratory, Gazprom VNIIGAZ LLC)
Mikhail Yuryevich Komarov
(Deputy Head of the Environmental Protection and Energy
Conservation Department, Gazprom Transgaz Yugorsk LLC)
Methodological approaches to assess energy efficiency of the
gas compression process during gas transportation through
trunklines

13.00–14.00 Break

14.00 **D7** **Anatoly Konstantinovich Demin**
(Leading Researcher, Institute of High-Temperature
Electrochemistry, UB RAS)
Flue gas utilization by electrochemical devices with subsequent
processing into synthetic fuel

14.15 **D8** **Denis Anatolievich Neretin**
(Deputy Head of the Energy Conservation and Energy Efficiency
Laboratory at Gazprom VNIIGAZ LLC)
Assessment of the natural gas saving potential at trunk pipeline
transportation facilities

14.30

D9 Dmitry Pavlovich Solomennikov

(1st Category Engineer of the Environmental Protection and Energy Conservation Department, Gazprom Transgaz Chaikovsky LLC)

Development of an intelligent system for monitoring and management of the Company's gas transportation system energy efficiency with regulation and forecast functions

14.45

D10 Ilya Viktorovich Evseenko

(Leading Researcher of the Energy Conservation and Energy Efficiency Laboratory, Gazprom VNIIGAZ LLC)

Energy analysis is the first step towards energy performance improvement

15.00

Questions and answers

15.45-16.00 Break

Technical Panel B/C

Climate Risks and the Low-Carbon Economy – New Challenges for the Industry. Prospects for the Hydrogen Energy Development

Moderators:

Konstantin Vladimirovich Romanov –

Executive Secretary of PJSC Gazprom’s Coordinating Committee for Rational Use of Natural Resources,
Head of the Division, PJSC Gazprom
General Director, Gazprom Hydrogen LLC

Sergey Anatolievich Roginko –

Head of the Center of the Institute of Europe of the Russian Academy of Sciences, Professor at the Financial University under the Government of the Russian Federation

Andrei Mikhailovich Mikhailov –

Head of the Hydrogen Technologies Laboratory of the Corporate Scientific and Technical Center for Environmental Safety and Energy Efficiency,
Gazprom VNIIGAZ LLC

Andrei Nikolaevich Rogalyov –

Strategy Director of PJSC Power Machines,
Head of the Department of Innovative Technologies in Science-Intensive Industries, Institute of Energy Efficiency and Hydrogen Technologies, FSBEI HE “NRU “MPEI”

(Room 302, Block “E”)

14.00–18.00 Reports and presentations

14.00

B/C1 **Sergey Aleksandrovich Kiselev**

(Head of Environmental Products Sector, St. Petersburg Branch of Gazprom Marketing & Trading)

Implementation of climate projects from an idea to production of carbon units

14.15 **B/C2** **Elena Valentinovna Kosolapova**
(Deputy Head of the Environmental Protection and Resource Saving Laboratory, Gazprom VNIIGAZ LLC)
Implementation of the roadmap of the greenhouse gas emissions management system in Gazprom Group Companies for the period up to 2030

14.30 **B/C3** **Boris Gennadyevich Kukui**
(Head of the Laboratory of Protective Media, OJSC VNIIMT)
Modular small-size units for production of hydrogen and synthetic liquid hydrocarbons from natural gas

14.45 **B/C4** **Pavel Nikolaevich Grigoriev**
(Junior Research Associate, Hydrogen Technology Laboratory, Gazprom VNIIGAZ LLC)
Potential to reduce the unit cost of natural gas transportation through the use of hydrogen energy carriers

15.00 **B/C5** **Sergey Nikolaevich Novik**
(Deputy Commercial Director of STF BACS LLC)
Installation designed to produce hydrogen and methane-hydrogen mixture by induction pyrolysis with gas separation by preparative chromatograph

15.15 **B/C6** **Denis Dmitrievich Goldobin**
(Junior Research Associate, Hydrogen Technology Laboratory, Gazprom VNIIGAZ LLC)
Project presentation for the Vernadsky Foundation Youth Contest «Protium Cluster»

15.30 **B/C7** **Igor Vasilievich Kudinov**
(Acting Head of the Physics Chair, Samara State Polytechnic University)
Samara State Polytechnic University experimental and theoretical research of pyrolytic technologies for hydrogen production

15.45-16.00 Break

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- 16.00** **B/C8** **Ivan Igorevich Komarov**
(Director of the Center for Innovative Development, Assistant Vice Rector, Associate Professor of the Department of Innovative Technologies in Science-Intensive Industries, Institute of Energy Efficiency and Hydrogen Technologies, FSBEI HE “NRU “MPEI”)
Hydrogen storage at CHPPs as a way to expand the adjustment range limits
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- 16.15** **B/C9** **Anatoly Konstantinovich Demin**
(Leading Research Associate, Institute of High-Temperature Electrochemistry, UB RAS)
Obtaining pure hydrogen from natural gas by electrochemical conversion
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- 16.30** **B/C10** **Alexei Sergeyeovich Malenkov**
(Head of the Innovative Development and Solutions Department of the Center for Innovative Development, Associate Professor of the Department of Industrial Heat and Power Systems, Institute of Energy Efficiency and Hydrogen Technologies, FSBEI HE “NRU “MPEI”)
Advanced Technologies of Hydrogen Production and Transportation
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- 16.45** **B/C11** **Dmitry Olegovich Dunikov**
(Senior Research Associate of the Laboratory of Hydrogen Energy Technologies, United Institute of High Temperatures, RAS)
Hydrogen extraction from energy mixtures using metal-hydrides
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- 17.00** **B/C12** **Sergey Nikolaevich Petin**
(Head of Further Professional Education Department, Associate Professor at the Department of Innovative Technologies in Science-Intensive Industries, Institute of Energy Efficiency and Hydrogen Technologies, FSBEI HE “NRU “MPEI”)
Effective production of hydrogen from natural gas and its use in high-temperature applications
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- 17.15** **B/C13** **Dmitry Viktorovich Blinov**
(Senior Researcher of the Laboratory of Hydrogen Energy Technologies, United Institute of High Temperatures, RAS)
System integration of metal-hydride devices for hydrogen storage and purification with a fuel cell and an electrolyzer
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17.30 **B/C14** **Stanislav Alexeyevich Gritsyuta**
(Chief specialist of Hydrogen Technology Laboratory
of Gazprom VNIIGAZ LLC)
Analysis of existing technical solutions for hydrogen fueling
stations for different consumers

17.45 **B/C15** **Sergey Aleksandrovich Lukin**
(Post-graduate student of the Department of Design
and Operation of Gas and Oil Pipelines at the Gubkin Russian
State University of Oil and Gas (NRU), Junior Researcher
of the Laboratory of Methodological Support of Pre-Start-Up
and Start-Up Operations at Gazprom VNIIGAZ LLC)
Reduction in methane emissions by improving the algorithm
for calculating the trunk gas pipeline filling parameters

18.00 **B/C16** **Artem Vitalievich Borisov**
(Master's student of the Department of Transportation
and Storage of Oil and Gas, St. Petersburg Mining University)
Development of risk-oriented approach in climate risk
management

18.15 **Departure of the participants**

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