

Action Plan for Achieving the EID Polytechnic Goals

Goal 1: to increase the reliability and efficiency of the energy system in the EID

Goal 2: to reduce heating and electricity costs

Goal 3: to rise end users' awareness for conscious energy consumption and saving

Technical subsystem of the EID

No	Measures	Necessary financing, thousand rubles	Planned date of realization	Type of energy resource	Planned annual change in consumption		
					In kind		Costs, thousand rubles
					Units measuring	Value	
1	The reconstruction project of three automated heat points at dormitory 13, St. Petersburg, Gradgdanskiy av. 30	1300	12/2020	Heat energy			
2	The project for replacement of building utilities at dormitory 13, St. Petersburg, Gradgdanskiy av. 30	2 800	12/2019	Heat energy			
3	Major repairs of the building with the replacement of utility networks at dormitory 13, St. Petersburg, Gradgdanskiy av. 30	250 000	2020-2021	Heat energy	GCal	250	505,692
4	Replacement of three automated heat points at dormitory 13, St. Petersburg, Gradgdanskiy av. 30	30 000	2021	Heat energy	GCal	500	1011,384
5	Installation of 10 block automated heat points in buildings	70 000	2022	Heat energy	GCal	150000	3034
6	Modernization of the exterior lighting of the Main Building facade	50 000	2020	Electricity	Thousand kWh	12,563	50,88
7	Replacement of internal heating, networks at dormitories No. 10, 14, 15, 16	23 000	2022	Heat energy	GCal	552	1116,144
8	Replacement of	22 000	2022	Water	Thousand	2,232	59,036

	internal water supply and sewage networks at dormitories No. 10, 14, 15, 16				m3		
9	Replacement of luminaires with LED	5 000	2022	Electricity	Thousand kWh	542,24	2196, 052
10	Installation of double-glazed windows	25 300	2022	Heat energy	GCal	5000	10113,83

Economic subsystem of the EID

No	Measures	Necessary financing, thousand rubles	Planned date of realization	Type of energy resource	Planned annual change in consumption		
					In kind		Costs, thousand rubles
					Units measuring	Value	
1	Designing of commercial metering points for natural gas in educational buildings at Main Campus, Polytechnicheskaya St., 29	500	12/2020	Natural gas	Thousand m3	102	629,34
2	Installation of metering unit at the northern input of cold water supply in the central boiler room -St. Petersburg, Polytechnicheskaya St., 29	150	12/2019	Water	Thousand m3	2,365	62,554
3	Organizing of points for technical electricity metering (8 units) in Scientific-Research Building (Polytechnicheskaya 29, bl AF).	1000	12/2020	Electricity	Thousand kWh	230	931,5
4	Development the internal regulation on incentive the SPbPU subdivisions units for energy saving	100	2020	Electricity Heat energy Water			
5	Selection of pilot building and creation the database on energy consumption in this building	300	2020	Electricity Heat energy Water			

6	Piloting the incentive measures for energy saving in typical buildings (dormitory, educational building)	600	2021	Electricity Heat energy Water			
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Social subsystem of the EID

No	Measures	Necessary financing, thousand rubles	Planned date of realization	Type of energy resource saved
1	A survey of SPbPU students and staff about their awareness of energy saving issues	50	10/2019	Electricity Heat energy Water
2	Processing of survey results and selection of most active people	50	11/2019	Electricity Heat energy Water
3	Moderating the student society on energy saving	50	12/2019	Electricity Heat energy Water
4	Development and piloting cases on energy saving for education in 2 Institutes	100	12/2019	Electricity Heat energy Water
5	Piloting the Students Case Championship on EID issues	150	04/2020	Electricity Heat energy Water
6	Development of topics for term papers and graduate work of bachelors and masters based on EID issues	50	06/2020	Electricity Heat energy Water
7	Target measures on promotion of EID topics in pilot buildings	200	06/2021	Electricity Heat energy Water
8	Visualization of collected data on energy consumption in pilot buildings and dissemination of these data among end users	500	12/2021	Electricity Heat energy Water
9	Summarizing results of piloting the energy saving measures	300	12/2021	Electricity Heat energy Water
10	Dissemination of results on other SPbPU buildings	5 000	2022-2024	Electricity Heat energy Water

Monitoring of the Action Implementation

Action Plan Overview Table

Addressed Goal: to increase the reliability and efficiency of the energy system in the EID

No	Measures	Responsible	Time-frame	Status	Funding	Communication
1	The reconstruction project of three automated heat points at dormitory 13, St. Petersburg, Gradgdanskiy av. 30	Department of Chief Engineer	1/2020 - 12/2020	Not started	SPbPU budget	
2	The project for replacement of building utilities at dormitory 13, St. Petersburg, Gradgdanskiy av. 30	Department of Chief Engineer	12/2019	ongoing	SPbPU budget	Working meetings under supervision of Vice-rector on general service: status update every month
3	Major repairs of the building with the replacement of utility networks at dormitory 13, St. Petersburg, Gradgdanskiy av. 30	Department of Chief Engineer	2020-2021	Not started	SPbPU budget	
4	Replacement of three automated heat points at dormitory 13, St. Petersburg, Gradgdanskiy av. 30	Department of Chief Engineer	2021	Not started	SPbPU budget (tbc)	
5	Installation of 10 block automated heat points in buildings	Department of Chief Engineer	2021	On going	SPbPU budget	Working meetings under supervision of Vice-rector on general service: status update every month
6	Modernization of the exterior lighting of the Main Building facade	Department of Chief Power Engineer	2021	On going	SPbPU budget	Working meetings under supervision of Vice-rector on general service: status update every month
7	Replacement of internal heating, networks at dormitories No. 10, 14, 15, 16	Department of Chief Engineer	2022	On going	SPbPU budget	Working meetings under supervision of Vice-rector on general service: status update every month
8	Replacement of internal water supply and sewage networks at dormitories No. 10, 14, 15, 16	Department of Chief Engineer	2022	On going	SPbPU budget	Working meetings under supervision of Vice-rector on general service:

						status update every month
9	Replacement of luminaires with LED	Department of Chief Engineer	2021	On going	SPbPU budget	Working meetings under supervision of Vice-rector on general service: status update every month
10	Installation of double-glazed windows	Department of Chief Engineer	2022	On going	SPbPU budget	Working meetings under supervision of Vice-rector on general service: status update every month

Addressed Goal: to reduce heating and electricity costs

No	Measures	Responsible	Time-frame	Status	Funding	Communication
1	Designing of commercial metering points for natural gas in educational buildings at Main Campus, Polytechnicheskaya St., 29	Department of Chief Power Engineer	12/2020	ongoing	SPbPU budget	Working meetings under supervision of Vice-rector on general service: status update every month
2	Installation of metering unit at the northern input of cold water supply in the central boiler room -St. Petersburg, Polytechnicheskaya St., 29	Department of Chief Power Engineer	12/2019	ongoing	SPbPU budget	Working meetings under supervision of Vice-rector on general service: status update every month
3	Organizing of points for technical electricity metering (8 units) in Scientific-Research Building (Polytechnicheskaya 29, bl AF).	Department of Chief Power Engineer	12/2020	ongoing	SPbPU budget	Working meetings under supervision of Vice-rector on general service: status update every month
4	Development the internal regulation on incentive the SPbPU subdivisions units for energy saving	Institute of Industrial Management, Economic and Trade	2020	Not started	SPbPU budget (tbc)	
5	Selection of pilot building and creation the database on energy consumption in this building	Department of Chief Engineer	2020	Not started	SPbPU budget (tbc)	
6	Piloting the incentive measures for energy saving in typical buildings (dormitory, educational building)	Institute of Industrial Management, Economic and Trade	2021	Not started	SPbPU budget (tbc)	

Addressed Goal: to rise end users' awareness for conscious energy consumption and saving

No	Measures	Responsible	Time-frame	Status	Funding	Communication
1	A survey of SPbPU students and staff about their awareness of energy saving issues	PP3 AREA staff	10/2019	completed	20% - SPbPU 80% - AREA21	Working meetings: status update every week
2	Processing of survey results and selection of most active people	PP3 AREA staff	11/2019	completed	20% - SPbPU 80% - AREA21	Working meetings: status update every week
3	Moderating the student society on energy saving	PP3 AREA staff	2019 - 09/2020	ongoing	20% - SPbPU 80% - AREA21	Working meetings: status update every week
4	Development and piloting cases on energy saving for education in 2 Institutes	PP3 AREA staff	12/2019	ongoing	20% - SPbPU 80% - AREA21	Working meetings: status update every two week
5	Piloting the Students Case Championship on EID issues, SPbPU Case Club	PP3 AREA staff	04/2020	ongoing	20% - SPbPU 80% - AREA21	Working meetings: status update every two week
6	Development of topics for term papers and graduate work of bachelors and masters based on EID issues	PP3 AREA staff	06/2020	ongoing	20% - SPbPU 80% - AREA21	Working meetings: status update every two week
7	Target measures on promotion of EID topics in pilot buildings	Institute of Industrial Management, Economic and Trade	06/2021	Not started	SPbPU budget (tbc)	
8	Visualization of collected data on energy consumption in pilot buildings and dissemination of these data among end users	Institute of Computer Science and Technology	12/2021	Not started	SPbPU budget (tbc)	
9	Summarizing results of piloting the energy saving measures	Institute of Industrial Management, Economic and Trade	12/2021	Not started	SPbPU budget (tbc)	
10	Dissemination of results on other SPbPU buildings	Institute of Industrial Management, Economic and Trade	2022-2024	Not started	SPbPU budget (tbc)	