Ministry of Energy

of the Republic of Lithuania

Report on investments

in modernising electricity generation

pursuant to article 10c(1) of directive 2003/87/EC

February 2020

CONTENT

1 INTRODUCTION 3
2 Investments implemented in electricity sector in 2019 4
2.1 List of participants 4
2.2 List of investments 4
2.3 Evidence documents 5
2.4 Compliance indicators 5
3 Allocation for 2013-2019 based on investments 6
4 CONCLUSIONS 7
Annex 8

1 INTRODUCTION

The Report on investments made in modernisation of electricity generation sector pursuant to article 10c (1) of Directive 2003/87/EC has been prepared in accordance to the provisions of the following legal acts and documents:

- Article 6.3. of the Communication from the Commission "Guidance document on the optional application of Article 10c of Directive 2003/87/EC";
- Item 2.4 of the Order of the Minister of Environment and Minister of Energy No. D1-559/1-179 "On transitional free allocation of emission allowances for the electricity producers in 2013-2020", 14 July 2011 (hereinafter - Joint Order);
- Application of the Republic of Lithuania for transitional free allocation of emission allowances under Article 10c of Directive 2003/87/EC, approved by the COMMISSION DECISION of 23.5.2012 concerning the application pursuant to Article 10c (5) of Directive 2003/87/EC of the European Parliament and of the Council to give transitional free allocation for the modernisation of electricity generation notified by Lithuania (hereinafter – Application).

The Report is based on individual reports submitted by the operators from electricity sector on investments made in 2019.

2 Investments implemented in electricity sector in 2018

2.1 List of participants

During the reporting period, neither (out of 8) operator has reported on implementation of modernization investments in installation of electricity sector.

2.2 List of investments

The rest of planned investments in 2020 are shown in Table 1 below:

Table 1: Investment schedule for 2019-2020

0	Value		Invested amount in 2013		Investments in 2014		Investments in 2015	Investments in 2016	Investments in 2017	Investments in 2018	Investments in 2019	Investment in 2020
	LT	EUR	LTL	EUR	LTL	EUR	EUR	EUR	EUR	EUR	EUR	EUR
	3 235 127 272	**936 957 620**	**1 545 056 354**	**447 479 250**	**64 819 316**	**18 772 972**	**8 051 679**	**129 356**	**261 489**	**0**	**0**	**99 952 227**
LT-$-0001	86 900 000	25 167 980	87 149 205	25 240 154	Finished							
LT-$-0002	42 300 000	12 250 927				0	0	0	0	Investment cancelled due to changed needs.		
LT-$-0003	12 700 000	3 678 174					Postponed to 2017		Investment cancelled due to changed needs.			
LT-$-0004	12 000 000	3 475 440	Investment cancelled due to changed needs.									
LT-$-0005	900 000	260 658	Investment cancelled due to changed needs.									
LT-$-0006	900 000	260 658		0	893 200	258 689	Finished					
LT-$-0007	500 000	144 810	698 169	202 204	Finished							
LT-$-0008	17 166 000	4 971 617	16 345 623	4 734 020	Finished							
LT-$-0009	45 000 000	13 032 901	Investment cancelled due to changed needs.									
LT-$-0010	95 000 000	27 513 902	Investment cancelled due to changed needs.									
LT-$-0011	530 000 000	153 498 610	Investment cancelled due to changed needs.									
LT-$-0012	600 000	173 772		0		0	0	0	0	0	0	173 772
LT-$-0013	2 000 000	579 240		0		0	0	0	0	0	0	579 240
LT-$-0014	500 000	144 810		0		0	0	0	0	0	0	144 810
LT-$-0015	118 720 000	34 383 689	Investment cancelled due to changed needs.									
LT-$-0016	50 000 000	14 481 001	Investment cancelled due to changed needs.									
LT-$-0017	15 500 000	4 489 110	15 701 130	4 547 362	Finished							
LT-$-0018	50 470 000	14 617 122	47 901 755	13 873 307	Finished							
LT-$-0020	98 885	28 639	98 885	28 639	Finished							
LT-$-0021	700 000	202 734	Investment cancelled due to changed needs.									
LT-$-0022	150 000 000	43 443 003					Postponed to 2017		Investment removed.			
LT-$-0023	259 000 000	75 011 585	Investment cancelled due to changed needs.									
LT-$-0024	7 200 000	2 085 264		0		0	0	81 696	261 489	0	0	1 742 079
LT-$-0025	336 000 000	97 312 326		0		0	0	0	0	0	Postponed to 2020	97 312 326
LT-$-0026	2 400 000	695 088	Investment cancelled due to changed needs.									
LT-$-0027	40 942 000	11 857 623	43 251 838	12 526 598	Finished							
LT-$-0028	2 721 000	788 056	2 757 961	798 761	Finished							
LT-$-0029	57 000	16 508	75 628	21 903	Finished							
LT-$-0030	20 314 000	5 883 341	20 313 813	5 883 287	Finished							
LT-$-0031	1 226 008 000	355 076 460	1 305 009 902	377 956 992	Finished							
LT-$-0033	5 269 387	1 526 120	4 132 313	1 196 801	1 137 074	329 319	Finished					
LT-$-0034	3 000 000	868 860	Postponed to 2015		Investment cancelled due to changed needs.							
LT-$-0035	2 350 000	680 607	46 700	13 525	1 699 760	492 285	80 280	47 660	Finished.			
LT-$-0036	250 000	72 405	75 000	21 722	Finished							
LT-$-0037	800 000	231 696	Investment cancelled due to changed needs.									
LT-$-0038	900 000	260 658	Investment cancelled due to changed needs.									
LT-$-0039	95 961 000	27 792 227	1 498 432	433 976	61 089 282	17 692 679	7 971 399	Finished.				

2.3 Evidence documents

According to item 2.4 of the Joint Order, all operators must submit their annual reports together with the Statement of an independent certified auditor or audit company on investments made in improvement of infrastructure, on implementation of environment-friendly technologies that reduce GHG emissions and investment amount in energy sector to the Ministry of Energy.

2.4 Compliance indicators

Compliance indicators for the investments set out in the National Plan are the following:

- Comparison of the emission factor of the technology adopted by each installation due to investments undertaken under Article 10c of Directive 2003/87/EC with the emission factor of the technology used before the retrofitting/ upgrading, t CO2/MWh;

- Expected and implemented decrease in total greenhouse gases emissions generated by electricity production due to investments undertaken under Article 10c (compared to business as usual scenario);

- Expected and implemented efficiency gains in electricity generation process is expressed as the ratio of the electricity produced (in TJ) with the energy input from fuels (in TJ). Efficiency increase is measured as rated difference before and after the investment;

- Efficiency gains in electricity distribution networks shall be determined as a reduction of network losses.

Compliance indicators achieved by the completely implemented investments in modernisation of electricity sector are provided in Annex.

3 Allocation for 2013-2019 based on investments

According to the provisions of the National investment plan, emission allowances allocated pursuant to Article 10c of the ETS Directive shall be transferred to an operator only after the investment eligible under the National Plan is undertaken. Pursuant to the Part C.2.1 of the Application, if the amount of investment undertaken by an operator is higher than the value of free emission allowances allocated under Article 10c of the ETS Directive, he/she receives the amount of allowances not higher than he/she was allocated in a given year according to the National Plan. The excess value of investments in a given year may be used for compliance with the next years allocation. Table 2 below shows allocation for 2013 – 2019 based on investments implemented in 2019. Grey cells illustrate the possible allocation in later years after the investments are undertaken by the rest of installations.

Table 2: allocation for installations based on implemented investments in 2019

Installation ID in the National Investment Plan	Installation name	Installation ID in the Union registry	Operator	Actual transitional free allocation (plan)									Allocation equal to total investment value in 2013	Allocation equal to total investment value in 2014	Allocation equal to total investment value in 2015	Allocation equal to total investment value in 2016	Allocation equal to total investment value in 2017	Allocation equal to total investment value in 2018	Allocation equal to total investment value in 2019	Allocation based on investments (fact) and adjusted to ATF allocation (plan), EUA								Total surplus / shortage of generated EUA							
				TOTAL	2013	2014	2015	2016	2017	2018	2019	2020								2013	2014	2015	2016	2017	2018	2019	2020	2013	2014	2015	2016	2017	2018	2019
					0,247	0,228	0,207	0,182	0,154	0,122	0,072	0,000																							
TOTAL numbers:				**2 853 624**	**582 373**	**536 614**	**486 698**	**428 459**	**361 901**	**287 027**	**170 552**	**0**	**30 859 705**	**938 649**	**402 584**	**6 468**	**13 074**	**0**	**0**	**322 449**	**297 113**	**269 475**	**237 230**	**200 379**	**158 922**	**94 432**	**0**	**30 278 265**	**22 282 298**	**22 198 183**	**21 776 192**	**21 427 366**	**21 140 339**	
LT-001	Noreikiskes boiler house	LT072	Kauno energija	**4 078**	832	767	696	612	517	410	244	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-832	-1 599	-2 295	-2 907	-3 424	-3 834	-4 078
LT-002	Petrasiunai power plant	LT069	Kauno energija	**6 214**	1 268	1 169	1 060	933	788	625	371	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1 268	-2 437	-3 497	-4 430	-5 218	-5 843	-6 214
LT-003	Power plant	LT055	Klaipėdos energija	**25 170**	5 137	4 733	4 293	3 779	3 192	2 532	1 504	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-5 137	-9 870	-14 163	-17 942	-21 134	-23 666	-25 170
LT-004	Kaunas Power plant	LT088	KTE	**396 212**	80 860	74 506	67 576	59 490	50 248	39 852	23 680	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-80 860	-155 366	-222 942	-282 432	-332 680	-372 532	-396 212
LT-005	Lietuvos Power plant	LT087	AB „Ignitis gamyba" *	**1 398 395**	285 387	262 963	238 502	209 963	177 347	140 655	83 578	0	27 507 142	925 714	402 584	6 468	13 074	0	0	285 387	262 963	238 502	209 963	177 347	140 655	83 578	0	27 221 755	20 398 524	20 562 606	20 359 111	20 194 838	20 054 183	19 970 605
LT-006	Alytus boiler house	LT086	Litesko	**28 591**	5 835	5 376	4 876	4 293	3 626	2 876	1 709	0	1 740 700	12 934	0	0	0	0	0	5 835	5 376	4 876	4 293	3 626	2 876	1 709	0	1 734 865	1 265 336	1 260 460	1 256 167	1 252 541	1 249 665	1 247 956
LT-007	Druskininkai Pramones boiler house	LT078	Litesko	**2 913**	595	548	497	437	369	293	174	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-595	-1 143	-1 640	-2 077	-2 446	-2 739	-2 913
LT-008	Marijampole boiler house	LT085	Litesko	**7 767**	1 585	1 461	1 325	1 166	985	781	464	0	13 945	0	0	0	0	0	0	1 585	1 461	1 325	1 166	985	781	464	0	12 360	7 500	6 175	5 009	4 024	3 243	2 779
LT-010	Siauliai Southern boiler house	LT050	Šiaulių energija	**9 323**	1 903	1 753	1 590	1 400	1 182	938	557	0	958 755	0	0	0	0	0	0	1 903	1 753	1 590	1 400	1 182	938	557	0	956 852	691 965	690 375	688 975	687 793	686 855	686 298
LT-011	Utena boiler house	LT057	Utenos ŠT	**746**	152	140	127	112	95	75	45	0	313 611	0	0	0	0	0	0	152	140	127	112	95	75	45	0	313 459	227 118	226 991	226 879	226 784	226 709	226 664
LT-012	CHP No. 2	LT044	Vilniaus šilumos tinklai *	**135 178**	27 587	25 420	23 055	20 296	17 144	13 597	8 079	0	326 484	0	0	0	0	0	0	27 587	25 420	23 055	20 296	17 144	13 597	8 079	0	298 897	191 280	168 225	147 929	130 785	117 188	109 109
LT-013	CHP No.3	LT045	Vilniaus šilumos tinklai *	**839 037**	171 232	157 778	143 101	125 978	106 408	84 393	50 147	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-171 232	-329 010	-472 111	-598 089	-704 497	-788 890	-839 037

*** March 29, 2017 the operator has changed, because the concession contract with UAB „Vilniaus energija" has expired.**

*** September 6, 2019 Lietuvos Energijos Gamyba, AB changed its name to AB „Ignitis gamyba".**

4 CONCLUSIONS

Out of 37 investments approved in the National Investment Plan, 16 are implemented. During the reporting period of 2019 1 investment has been postponed to the later year and 1 investment is ongoing.

According to the allocation plan, total amount of 170.552 EUAs is planned to be allocated in 2019. However, not all the installations were involved in the investment process until 2019 therefore the final allocation for 2019 amounts to 94.432 EUAs (55% of planned in 2019).

It should be noted that additional investments 2017 in project LT-$-0035 was not included in the investment plan under the National application. Additional investments were made on own company initiative. Also, we want to note that the additional investment in the project LT-$-0035, does not affect the final allocation of emission allowances allocated on 2017-2020. No additional allowances are allocated for additional investments. Unallocated allowances are not redistributed among investments. Report is corect and does not affect the allocation for 2019, provided to AB „Ignitis gamyba".

It should be noted that on September 6, 2019 Lietuvos Energijos Gamyba, AB changed its name to AB „Ignitis gamyba".

Annex

Table 3: Compliance indicators of the finished investments, 2016

Investment number	Description	Ivested amuont in 2016	Compiliance indicators		
		EUR	Increase of efficiency in electricity production, %	Reduction of CO2 emissions in electricity production, t/year	Change in emissions factor, t CO2/TJ
LT-$-0035	Investment in reduction of energy consumption for electricity production	47.660	-	2.439	-

Table 4: Compliance indicators of the finished investments, 2015

Investment number	Description	Invested amount in 2015	Compliance indicators		
		EUR	Increase of efficiency in electricity production, %	Reduction of CO_2 emissions in electricity production, t/year	Change in emission factor, t CO2/TJ
LT-$-0039	Construction of biofuelpower plant	7.971.399	-	-	20,92

Table 5: Compliance indicators of the finished investments, 2014

Investment number	Description	Invested amount in 2014		Compliance indicators		
		LTL	EUR	Increase of efficiency in electricity production, %	Reduction of CO_2 emissions in electricity production, t/year	Change in emission factor, t CO2/TJ
LT-$-0006	Reconstruction of transformer station KTP-102 in Alytus RK	900.000	260.658	Compliance with UCTE reliability requirements		
					14,78 CO_2	
LT-$-0033	Reconstruction of wastewater handling equipment reducing electricity consumption for managing of technological wastewater	4.132.313	1.196.801	62,3		

Table 6: Compliance indicators of the finished investments, 2013

Investment number	Description	Invested amount in 2013		Compliance indicators		
		LTL	EUR	Increase of efficiency in electricity production, %	Reduction of CO_2 emissions in electricity production, t/year	Change in emission factor, t CO_2/TJ
LT-$-0001	Construction of 5,4 MWe biomass CHP in Alytus RK	87.149.205	25.240.154	4,1	6.357	
LT-$-0007	Reconstruction of 0,4 kV switchyard in Marijampole RK	698.169	202.204	Compliance with UCTE reliability requirements		
LT-$-0008	Reconstruction of 6 kV switchyard of CHP No.2	16.345.623	4.734.020	Compliance with UCTE reliability requirements		
LT-$-0017	Construction of biofuel CHP	15.701.130	4.547.362	14	15.482	
LT-$-0018	Installation of biofuel CHP	47.901.755	13.873.307		5.161	-108,5
LT-$-0020	Optimisation of burning process in steam boiler No. 3	98.885	28.639		240	
LT-$-0027	Plant reconstruction to increase efficiency: more electricity is produced with the same installed capacity in KHE	43.251.838	12.526.598	4		
LT-$-0028	Reconstruction of hydrounits regulation systems to increase efficiency: more electricity is produced with the same installed capacity in KHAE	2.757.961	798.761	Compliance with UCTE reliability requirements		
LT-$-0029	Installation of solar collectors for feeding water preparation. Conservation of electricity in KHAE	75.628	21.903	10		
LT-$-0030	Modernization of managing systems to increase efficiency	20.313.813	5.883.287	0,05		
LT-$-0031	Building of a new 455 MW capacity KCDT block (closing two blocks) to increase electricity production efficiency about 30%	1.305.009.902	377.956.992	93		
LT-$-0036	Reduction of energy consumption for preparation of chemically treated water used for electricity production	75.000	21.722	35,8		