

622.323+622.324 (4)

• • , • • , • • , • • , • • 1

2

-  
-  
-  
-  
-  
-

1483

3

368

[1, . 13].

2014

27% 2030

2020

18-19%,

2020

«20-20-20»,

2010 .,  
2020 .

20%

-28 2020 .

1  
mitrovat@me.com;

, . . . , e-mail:

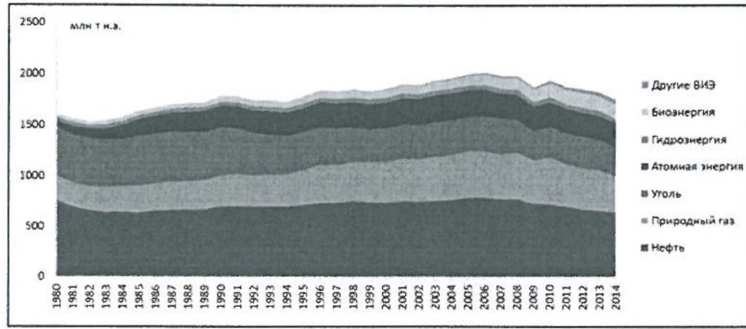
, e-mail: vakulagin@yandex.ru;

, e-mail: s.melnikova@inbox.ru ;

, e-mail: dagrushevenko@hse.ru;

2  
( 14-19-01459).

3  
41



. 1.

0,110 . ./ 1990 2014 . 0,167  
34%.

( . 1).

2010 .

1995 .

2006 .

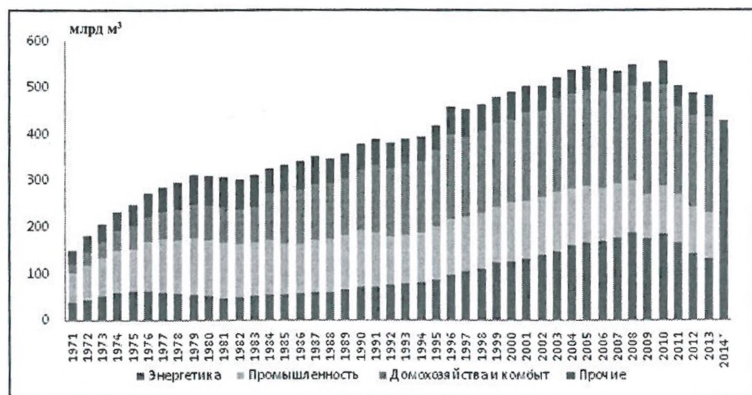
2014 .

1980-

2014 .

XX -

XXI .



\*2014 . - : , Eurugus.

. 2.

20% ( 104 ³),

2010 . (597,9 ³)  
23% ( . 2).

200-210 ³.

2003 .

0,4%

2010-2014 .,  
2004 .

: - 33,4 ³ 2008 .  
16,8 ³ 2014 (-49,7%),  
24,8 14,2 ³ (-42,7%),  
4,4 ³ (-72,5%)<sup>4</sup>.

XXI .

2003 .,

2014 .

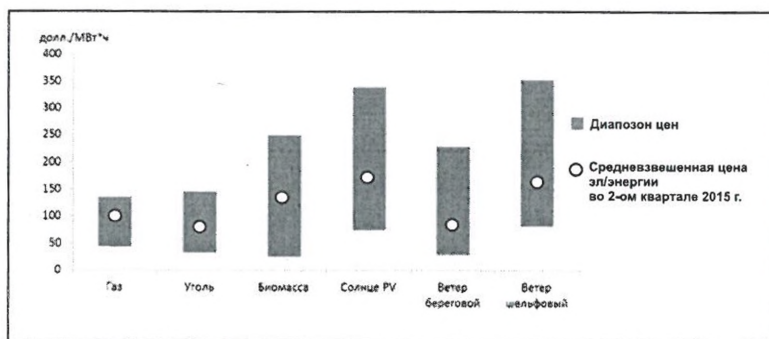
<sup>4</sup> Bentek.

30-40 / . , [1, .26].

21 16%), ( 29 26%), (EU ETS), CO<sub>2</sub> 6-8 ,

2 10% [1, .22]. ( ) 40-50 CO<sub>2</sub> / CO<sub>2</sub> 2016-2017 .

2021 . ( . 3). 2- 2015 . 2010 . , ( 2013 . (spark spread) 1,7 51,1 5, (dark spread),



: Bloomberg New Energy Finance, IRENA database.

.3.

<sup>5</sup> CEER. Status Review of Renewable and Energy Efficiency Support Schemes in Europe in 2012 and 2013,

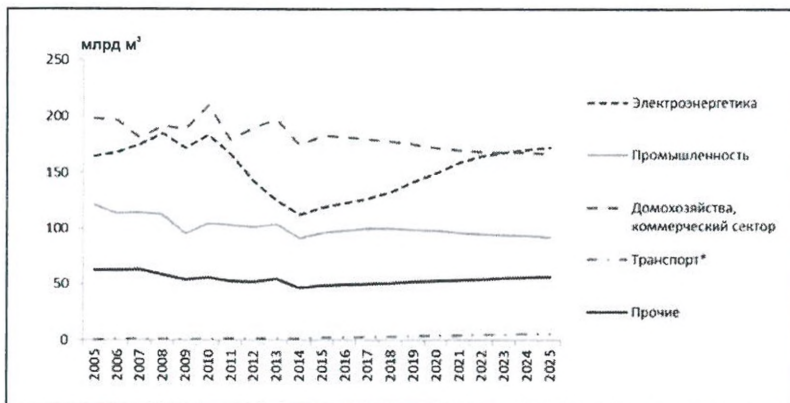
2015 .

( 2014 )<sup>6</sup>.  
 IED<sup>8</sup> ( )  
 2025 .  
 ( .4),  
 5-7%.  
 [1, .33].  
 1,5%,  
 2014 . 6 3 2025 .. 2 3  
 CO<sub>2</sub> LCPD<sup>7</sup> 250 3. 2025 .

<sup>6</sup> URL: <http://www.eesc.europa.eu/resources/docs/european-energy-security-strategy.pdf>.

<sup>7</sup> Large Combustion Plants Directive 2001/80/EC 23 2001 .

<sup>8</sup> Industrial Emissions Directive 2010/75/EU 24.11.2010 .



\* - « ».

.4.

2000-

9,

(  
)  
( .5).

2005 2013

2010 ..

0,8%.

(Levelised cost of Electricity)

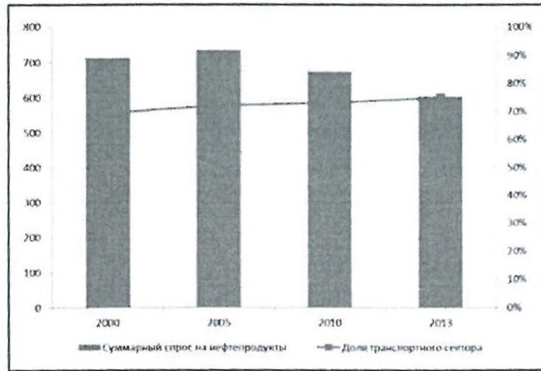
( ) 2013 ..

[3]

10.

1990-

<sup>10</sup>World Energy Council World Energy Perspective Cost of Energy Technologies, 2013.



: IEA World energy balances, 2014.

. 5.

( , . )

1999/94/ , -

[5].

2 -

2005 .. ,

2000-

CAFE (Corporate Average Fuel Economy) [4],

CO<sub>2</sub> 140 / 2008 . ( - 2000/303/ 1999/125/ , 2000/304/ ) 90 / CO<sub>2</sub> 2015 .

«20-20-20»

2025 . ( )

2030 .

2020 .

10%. 2013 .

4%,

1 2015 .

( )

0,1% ( )

2012/33/EU).

Concawe [7],

( 2014/94/EU)

: «

» [6].

11.

( )

( ) , 2014 . 100%

150

2020 . 2025 .

2020 . Boeing<sup>12</sup> British Airways<sup>13</sup>.

2025 .

2014/94/EU

<sup>11</sup> (2014/94/EU).

<sup>12</sup> Boeing and Sustainable Aviation Biofuel Development / Boeing commercial Airplanes Backgrounder.

<sup>13</sup> URL: <http://www.telegraph.co.uk/finance/newsbysector/transport/11263338/UK-has-opportunity-to-become-world-leader-in-biofuel-says-aviation-lobb>



25% 2025 .

2005

14.

15-20%

2040 .,

2014 . 2025 .

10-15% 2025 .,  
(23-27%)

2014 2040 .  
(

).

90 2025

70-80 2040

98% 2014 . 85-

<sup>14</sup>  
efficiency.aspx

. URL: <https://www.iata.org/whatwedo/ops-infra/Pages/fuel-efficiency.aspx>

