



Sustainable Energy Connectivity in Central Asia



Funded by  
the European Union

International Conference  
Sustainable energy in Kyrgyzstan: prospects and challenges  
Park Hotel Bishkek, 15 May 2023

# ENERGY EFFICIENCY IN BUILDINGS – CURRENT STATUS AND CHALLENGES

**Maksat Amirayev**

**Head of the Department of Development and Monitoring of Housing and Communal Services,**

**State agency for architecture, construction and housing and utilities (Gosstroy) under the Cabinet of ministers of the Kyrgyz Republic**



# **Energy efficiency of buildings in the Kyrgyz Republic**

**2023**

Law No. 137 of July 26, 2011 on the energy efficiency of buildings entered into force on February 26, 2012;

GKR Resolution No. 531 of August 2, 2012:

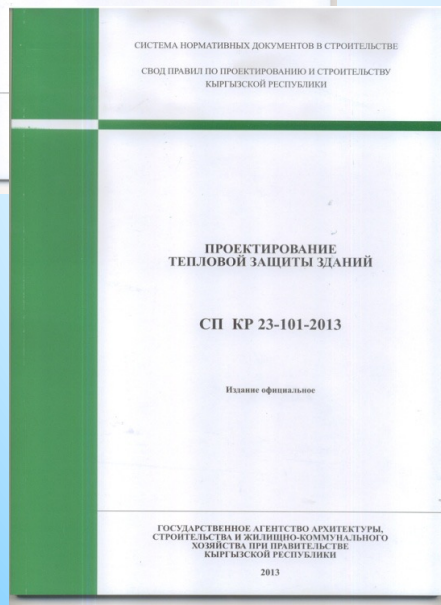
Regulations on the procedure for energy certification of buildings;

Regulations on the procedure for conducting periodic control of boilers, heating systems and hot water supply.

# To support of the Law put into effect by order of the Gosstroy No. 143 dated May 28, 2013



1. SNiP23-01:2013  
“Construction heat engineering (Thermal protection of buildings)”,



2. SP 23-101-2013 "Design of thermal protection of buildings",

**МЕТОДИКА РАСЧЕТА**

ПОКАЗАТЕЛЕЙ ЭНЕРГЕТИЧЕСКОЙ ЭФФЕКТИВНОСТИ ЗДАНИЙ  
И ОПРЕДЕЛЕНИЯ КЛАССА ЭНЕРГЕТИЧЕСКОЙ ЭФФЕКТИВНОСТИ  
ДЛЯ ЭНЕРГЕТИЧЕСКОЙ СЕРТИФИКАЦИИ ЗДАНИЙ

**МЕТОДИЧЕСКИЕ УКАЗАНИЯ**

ПО ПРОВЕДЕНИЮ ПЕРИОДИЧЕСКОГО КОНТРОЛЯ  
ЭНЕРГЕТИЧЕСКОЙ ЭФФЕКТИВНОСТИ КОТЛОВ, СИСТЕМ  
ОТОПЛЕНИЯ И ГОРЯЧЕГО ВОДОСНАБЖЕНИЯ ЗДАНИЙ

**РУКОВОДСТВО**

К РАСЧЕТНОМУ ПРИЛОЖЕНИЮ ДЛЯ ЭНЕРГЕТИЧЕСКОЙ  
СЕРТИФИКАЦИИ ЗДАНИЙ  
(НА БАЗЕ MICROSOFT EXCEL)

3. Methodology for calculating the energy efficiency indicators of buildings and determining the energy efficiency class for energy certification of buildings;
4. Methodological instructions for conducting periodic monitoring of the energy efficiency of boilers, heating systems of buildings and hot water supply of buildings;
5. Manual to the calculation application for the energy certification of buildings (based on Microsoft Excel);

# Qualification certification of specialists within the framework of the Law

## "On the energy efficiency of the buildings":

### Manual (Guideline) for Certified Professionals:

- energy certification of buildings;
- on carrying out periodic monitoring of the energy efficiency of boilers, heating systems of buildings and hot water supply of buildings;
- Public Registry User Guide



# Underlaws adopted to support the Law "On the Energy Efficiency of Buildings":

Resolution of the Government of the Kyrgyz Republic "On approval of regulatory legal acts in the field of energy efficiency of buildings" dated January 17, 2020 No. 13

- The procedure for maintaining the state register of energy certificates of buildings, reports on periodic control of the energy efficiency of boilers, heating and hot water supply systems, certified specialists in energy certification of buildings and on periodic control of the energy efficiency of boilers, heating systems and hot water supply;
- The order of qualification certification of specialists in the field of energy efficiency of buildings.

# STATE ONLINE REGISTER OF ENERGY EFFICIENT BUILDINGS AND INDEPENDENT SPECIALISTS. THERE ARE CURRENTLY 27 ENERGY AUDITORS

1 кыргызча · русский · english

2

Государственный реестр независимых сертифицированных специалистов

Государственный реестр энергетических сертификатов

Государственный реестр отчетов о периодическом контроле

3

4

5

6

© Gosstroy KR 2012. Publication and dissemination of content is prohibited without the written consent of the Gosstroy. All data uploaded by experts have been checked.  
Об этом проекте



# ЭНЕРГЕТИЧЕСКИЙ СЕРТИФИКАТ ЗДАНИЯ

Составлено по требованиям Закона Кыргызской Республики  
«Об энергетической эффективности зданий»  
№ \_\_\_\_\_



Здание: *жылай дом*  
Адрес: *ул. Фрунзе, 37* Город: *Бишкек*

Назначение заполнения энергетического сертификата: Климат. район:  
 Новое здание  Энергет. ренов. здания  Продажа  Аренда  Другое

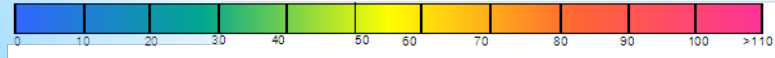
ЭНЕРГЕТИЧЕСКАЯ МАРКИРОВКА ЗДАНИЯ	Тип здания:	Многоквартирное здание	Существующее состояние
	Глобальный индикатор:	Общая поставлен. энергия	кВтч/(м <sup>2</sup> .год)
	Низкое потребление энергии	A	A
		B	
		C	
		D	
		E	
	F		
	G		
	Высокое потребление энергии		
Оценка факт. потребл. энергии		<input type="checkbox"/>	
Метод расчета:		сезонный	
Мин. требуемый $R_f$ :			
Стандартное значение $R_s$ :			

Оценка для разного использования

Система отопления: **A**

Система ГВС: **A**

Первичная энергия: **30** кВтч/(м<sup>2</sup>.год) **A**



**Меры, предлагаемые для повышения энергетической эффективности здания:**

Наружные стены:	
Крыша:	
Пол:	
Окна:	
Система отопления:	
Система ГВС:	
Другое:	

Дата: \_\_\_\_\_ Действителен до: \_\_\_\_\_  
 Подготовлен: \_\_\_\_\_  
 Контакты: тел.: \_\_\_\_\_ e-mail: \_\_\_\_\_ Подпись: \_\_\_\_\_

The purpose of certification is to characterize the consumption of energy resources by the building, identify the potential for energy saving and propose energy saving measures to the owner of the building

# Possibilities:

Improve the old!

- conducting energy audit and certification of buildings;
- improvement of thermal insulation of buildings;
- insulation of external structures;

Apply new!

- new construction technologies
- alternative energy sources;
- attraction of investments;
- improving the environment and reducing emissions.

# Energy Saving Benefits

## *for the population:*

- reduction of expenses for heating and hot water by 40-50%;
- reducing the cost of maintenance and upkeep of houses;
- increase in the market value of houses and apartments;
- increasing the aesthetic appearance of the building, blocks, cities;
- increasing the life cycle of the building;

## *for the state and society*

- reducing the load on the power system and increasing its reliability;
- increase in the possible export of electricity;
- reducing the need for social subsidies;

## *for commercial structures -*

- development of the energy-saving technologies market (attracting large suppliers to the market);
- advanced training of architects and designers;
- new business opportunities.

**Thank you for your  
attention!**