ORGANIZATION OF ENERGY MANAGEMENT IN MANUFACTURING ENTERPRISES

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Key words: Luminiset lamps, Diode lamps, Led lamps, Voltmeter, Ammeter, Multimeter.

Annotation: The article examines the issues of daily electricity consumption on the 4th floor of Andijan Mechanical Engineering Institute 1- Student accommodation and energy savings of its users. In the last part, suggestions are given, for example, switching from LED lamps to diode lamps, replacing electric plates with new energy-saving ones, and setting up an automatic lamp on-off system. The article concludes with suggestions for improving energy efficiency and reducing energy consumption.

В статье рассмотрены вопросы суточного потребления электроэнергии на 4 этаже Андижанского машиностроительного института 1- Студенческая гостиница и энергосбережения ее потребителей. В последней части даются предложения, например, по переходу со светодиодных ламп на диодные, замене электроплит на новые энергосберегающие, настройке системы автоматического включения-выключения ламп. Статья завершается предложениями по повышению энергоэффективности и снижению энергопотребления.

Maqolada Andijon Mashinasozlik Instituti 1-Talabalar turar joyining 4-etajidagi kunlik elektr energiya isrofi va undagi foydalanuvchilarning yana energiya tejamkorliklari masalalari ko'rib chiqilgan. So'nggi qismida, takliflar berilgan, masalan, led lampalarni diod lampalarga o'tkazish, elektr plitalarni yangi energiya tejamkorlarga almashtirish, va avtomatik lampalarni yoqib-o'chirish tizimini yo'lga qo'yish. Maqola, energiya tejamkorligini oshirish va energiya sarflarini kamaytirish bo'yicha takliflar bilan tugatilgan.

The daily, monthly and annual calculation of the electricity consumption of the 4th floor of the 1st student residence of the Andijan Mechanical Engineering Institute is determined. The available equipment in the student accommodation will be reviewed.

Name of rooms	Number and name of lamps	Other devices
Shower 423	10 led	2 ariston
Toilet 424	8 led	1 ariston
Laundry 425	2 led	cleaning machine ariston 1
Kitchen 426	2 led	1 ariston
Spiritual room 436	4 led	TV 42
Laundry 438	2 led	cleaning machine ariston 1
Toilet 439	8 led	1 ariston
Kitchen 440	2 led	1 ariston
Large rooms 407-412	12 led	-
Hall	11 luminesce	WiFi
Hall	2 diode	WiFi
Sports rooms	4 led	-
The remaining 30 rooms	60 led	-

If the power of LED lamps in the student accommodation is 6W, how many lamps are there in each room and their hourly and daily calculation is determined. According to the information provided, the power of the currently working aristons is calculated from 1.5 KW, depending on the number of hours of operation per day. There are 11 Luminesets and 2 diode lamps in the hall on the 4th floor of the student residence. Of these lamps, luminiset consumes 40W per hour, and diode lamps consumes 36W per hour.

Daily operating time and calculation:

1. The lamps in the shower stay on for 5 hours all day. 10 lamps there consume 6W total hourly calculation:

Consumes 6x10=60W.

We multiply the hourly consumption by the number of working hours throughout the day:

5x60=300W
Toilet 424. Hourly calculation of 8 led lamps 6W: 8x6=48W
Daily calculation: 6x48=288W
Laundry 425. 2 led lamps 6W per hour: 2x6=12W
Daily calculation: 5x12=60W
Kitchen 426. Hourly calculation of 2 led lamps 6W: 2x6=12W
Daily calculation: 5x12=60W
Spiritual room 436. Hourly calculation of 4 LEDs 6W: 4x6=24W
Daily calculation: 2x24=48W
Laundry 438. 2 led lamps 6W per hour: 2x6=12W
Daily calculation: 3x12=36W
2. Toilet 439. Hourly calculation of 8 led lamps 6W: 8x6=48W
Daily calculation: 6x48=288W
3. Kitchen 440. Hourly calculation of 2 led lamps 6W: 2x6=12W
Daily calculation: 5x12=60W
Large rooms 407-412. Hourly calculation of 12 led lamps 6W: 12x6=72W
Daily calculation: 6x72=432W
2. Hourly calculation of 11 luminiset 40W in the hall: 11x40=440W
Daily calculation: 5x440=2200W
3. Hourly calculation of hall 2 diodes 36W: 2x36=72W
Daily calculation: 5x72=360W
The remaining 30 rooms. Hourly calculation of 60 LEDs 6W: 60x6=360W
Daily calculation: 6x360=2160W
2. Sports rooms. Hourly calculation of 4 led lamps 6W: 4x6=24W
Daily calculation: 5x24=120W
2 additional LEDs are lit until the morning: 19:00 - 7:00. 12 hours is considered.
1 luminiset and 1 diode will burn until morning:
Consumes 40x12=480W 36x12=432W 480+432=912W.
Daily calculation: 912W = 0.912kw
Additional equipment:
- Number of electric plates is 4, used 4 hours a day
-The number of patients is 25, it is used 3 times a day
-The number of chargers is 100, used for 4 hours a day
- 10 computers are charged for 3 hours a day

Name of devices	how many	Power /w	Daily consumption/ kw
Electric stove	4	4000	16
Tefal	25	2000	0.51
Charger	100	50	0.2
computer	10	45	0.14

According to the information given above, the total daily demand of lamps, Aristons, washing machines is determined:

Name of rooms	Number and type of equipment	Other devices	Daily demand /kw
Shower 423	10 led	2 ariston	30,3
Toilet 424	8 led	1 ariston	15,288
Laundry 425	2 led	Kirmoshia ariston 1	16,66
Kitchen 426	2 led	1 ariston	15,06
Spiritual room 436	4 led	TV 42	0,178
Laundry 438	2 led	Kirmoshina ariston 1	16,636
Toilet 439	8 led	1 ariston	0,288
Kitchen 440	2 led	1 ariston	15,06
Large rooms 407-412	12 led	-	0,432
Hall	11 lyums	WiFi	2,356
Hall	2 diod	WF	0,516
Sports rooms	4 led	-	0,024
The remaining 30 rooms	60 led	-	2,16

The daily calculation of all electrical energy consuming devices is as follows:
Daily consumption 1 + Daily consumption 2 = 16.85+114.958=131.808 kw.

Andijan Institute of Mechanical Engineering charges 1,000 soums for each KW of electricity consumed. It can be seen that the amount required to pay for the daily electricity of the 4th floor is 131808 soums.

Lumen of lighting for residences and buildings:

Room type	Classification	Recommended lighting (lux).
Hotel bedroom kitchen dining room gym	Living rooms designed for relaxation and social activities, including zones for physical exercises	150
Children's room	For children to play and study, the room needs to be brighter.	200
Office, billiard hall	Work and hobby areas need good lighting levels for attention and attention to detail	300
Sauna bath indoor pool	Rooms with high humidity need adequate lighting for safety.	100
Hall toilet	Corridors require a minimum level of illumination for orientation.	50
Wardrobe	Adequate lighting is required for ease of use for viewing clothes and storing items.	75
Warehouse	The lighting of the place where household items are stored can be minimal, but it should be enough to find the items.	30
Reception	Entrance zones of the building should create a first impression and ensure traffic safety.	30
Staircases, interfloor corridors, elevator landings.	The movement zone between the floors should have enough light for movement safety and orientation.	20

It was determined that the 4th floor of the 1st TTJ of the Andijan Institute of Mechanical Engineering required daily electricity.

1. For the hall, instead of 40 W Lumenset lamps, it is necessary to switch to 6 W Led lamps and make the distance between them a little longer.

2. Replacing electric plates with a new modern energy-saving one

3. Setting up the system of turning on and off the lamps automatically.

Conclusion:

In order to reduce payments for electricity consumers, it is recommended to use the following equipment and devices:

For the hall, instead of 40 W Lumenset lamps, it is necessary to switch to 6 W Led lamps and increase the distance from 1 m to 1.5 m.

Replacing electric plates with a new modern energy-saving one

Setting up the system of automatic switching on and off of lamps.

It is necessary to replace all electrical energy-consuming equipment in the student accommodation with new ones and change to energy-saving devices. Setting up the system of automatic turning off and on of the lamps in the rooms during the day, of course, taking into account the weather conditions and the location of the room.

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