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ASPECTS OF IMPUCT OF TERITORIAL CONDITIONS TO THE SOLAR PANEL POWER EFFECIENCY FOR PROJECTING REMOTE STATIONAR TELECOMMUNICATION OBJECTS

Annotation: *In this work researched the development of efficiency of the rechargeable system of the telecommunication systems. And provide many practical attempts to detect that disadvantages. Therefore, given observation tables of theoretical and practical approaches on this direction. There are we mean of the solar rechargeable system of the telecommunication engineering.*

Keywords: *efficiency; telecommunications; deviation; longitude; power; supply; voltage; humidity; vibration.*

MASOFADAGI TELEKOMMUNIKATSIYA STATSIONAR OB'EKTLARINI QUYOSH PANELI ELEKTR TA’MIN QUVVATINI NAZORAT QILISH QIRRALARI

Annotatsiya: *Ushbu ishda telekommunikatsiya tizimlarining energiyani qayta tiklash tizimining samaradorligini rivojlantirish masalalari ko'rib chiqildi. Uni kamchiliklarni aniqlash uchun ko'plab amaliy urinishlarni o’tkazildi. Shu sababli, ushbu yo'nalish bo'yicha nazariy va amaliy yondoshuvlar bo'yicha kuzatuv jadvallari berilgan. Biz telekommunikatsiya tizimlarida quyosh energiyasidan zaryadlanadigan tizimni tadqik etilgan.*

Kalit so'zlar: *samaradorlik; telekommunikatsiyalar; og'ish; masofaviy tizim; kuch; ta'minot; kuchlanish; namlik; tebranish.*

АСПЕКТЫ ВНЕДРЕНИЯ ТЕРИТОРИАЛЬНЫХ УСЛОВИЙ ДЛЯ ЭНЕРГОСНАБЖЕНИЯ ЭНЕРГЕТИЧЕСКОЙ СОЛНЕЧНОЙ ПАНЕЛИ ДЛЯ ПРОЕКТИРОВАНИЯ ДИСТАНЦИОННЫХ СТАНЦИОНАРНЫХ ОБЪЕКТОВ ТЕЛЕКОММУНИКАЦИЙ

Аннотация: *в данной работе исследовали разработку эффективности перезаряжаемой системы телекоммуникационных систем. И предоставить много практических попыток обнаружить эти недостатки. Поэтому, учитывая таблицы наблюдения теоретических и практических подходов на этом направлении. Мы подразумеваемся о солнечной перезаряжаемой системе телекоммуникационной техники.*

Ключевые слова: *эффективность; телекоммуникации; отклонение; долгота; сила; поставка; напряжение; влажность; колибание.*

Development of efficiency of the rechargeable system of the telecommunication systems are complex. And provide many practical attempts to detect that disadvantages. Therefore, given observation tables of theoretical and practical approaches on this direction. There are we mean of the solar rechargeable system of the telecommunication engineering.

Factors which is efficiency of rechargeable system lose its exploitation properties and job ability.

-Deviation factors: non stable voltage, direction of panels, the heating of the battery, the fan motor speed drops due to heat; the fan motor speed drops due to contamination; the fan motor speed drops due to changes in the power supply voltage; exploitations period and so on;

-Natural factors: wind, high temperature, humidity, earthquakes, physical vibration;

Human factors: short-term illness, lack of qualifications, without mindfulness;

A number of tests and observations of the stability and efficiency of the solar power supply system of the projected telecommunications facility were carried out. Two of them given in tables below (table 1 and 2).

Table 1

Observation data	Energy swiched off time	Demand percentage	Conrol time	Conrol time	%	Voltage, v	longitude, h	Appearance of energy	Employee, who control it
15.1115	8-00	100%	15-30 17-30	17-30 21-00	84% 78%	49,4 48,1	2 h 2.30 h	21-00	Qambarov A Urinov Sh
16.11.15	8-00	100%	16-00 19-00	19-00 22-00	84% 76%	49,0 48,0	3 h 3 h	22-00	Mirzaqandov Qambarov A
17.11.15	8-00	100%	15-00 17-30	17-30 23-00	84% 76%	49,3 48,0	2.30 h 5.30 h	23-00	Qambarov A Urinov Sh
18.11.15	8-00	100%	15-00 18-00	18-00 21-30	84% 79%	49,2 48,6	3 h 3.30 h	21-30	Mirzaqandov Qambarov A
19.11.15	8-00	100%	15-30 17-00	17-00 20-00	84% 79%	49,0 48,6	1.30 h 3.00 h	20-00	Urinov Sh
21. 11.15	8-00	100%	15-00	18-00	84%	48,9	3 h	18-00	Qambarov A
22. 11.15	8-00	100%	16-00	19-00	83%	48.8	3 h	19-00	Mirzaqandov
23. 11.15	8-00	100%	16-00	20-00	81%	48,3	4 h	20-00	Urinov Sh
24. 11.15	8-00	100%	15-00	17-00	84%	49,1	2 h	17-00	Qambarov A
25. 11.15	8-00	100%	15-30	19-00	80%	48,7	3.30 h	19-00	Mirzaqandov
26. 11.15	8-00	100%	15-40	21-00	78%	48,0	5.20 h	21-00	Urinov Sh
27. 11.15	8-00	100%	15-00	18-00	82%	48,9	3.00 h	18-00	Qambarov A
29. 11.15	8-00	100%	16-00	20-00	80%	48,9	4 h	20-	Mirzaqandov

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01. 12.15	8-00	100%	15-00	21-00	78%	48,1	6 h	21-00	Urinov Sh
2. 12.15	8-00	100%	15-30	20-00	80%	48,6	4.30 h	20-00	Qambarov A
6. 12.15	8-00	100%	15-00	22-00	80%	48,3	7 h	22-00	Urinov Sh
10. 12.15	8-00	100%	15-00	20-00	84%	48,9	5 h	20-00	Qambarov A
15. 12.15	8-00	100%	14-30	19-00	82%	48,4	4.30 h	19-00	Qambarov A
19. 12.15	8-00	100%	14-00	18-00	83%	48,7	4 h	18-00	Qambarov A

Modeling of telecommunication networks are intended to assist designing of power electronics devices, while monitoring procedures are intended for a more effective State Of Charge (SOC) computing. It is worth noting that this still a hard task when working with lead acid batteries. [4]. Two models and three procedures were evaluated by using experimental data, and classified accordingly with their effectiveness. The world today faces a considerable growth and spreading of telecommunication networks. Mobile communications companies have to build a sufficient number of base transceiver stations (BTSs) in order to provide high-quality telecommunication services for their customers. [3] Analyzing of the tables you can see how much changeable are influencing factors of charger system.

Table 2

Observation data	swiched off time	Demand percentage	Conrol time	Conrol time	%	Voltage, v	longitude, h	Appearance of energy	Employee, who control it
15.1115	8-00	100%	15-30 17-30	17-30 21-00	84% 78%	49,4 48,1	2 h 2.30 h	21-00	Qambarov A Urinov Sh
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10. 12.15	8-00	100%	15-00	20-00	84%	48,9	5 h	20-00	Qambarov A
15. 12.15	8-00	100%	14-30	19-00	82%	48,4	4.30 h	19-00	Qambarov A
19. 12.15	8-00	100%	14-00	18-00	83%	48,7	4 h	18-00	Qambarov A

Used rechargeable system and controllers. LSIS Co., Ltd Solar Panel Series PVM M250-260P-R1. Detailed profile including pictures, certification details and manufacturer Korea. PVM M250-260P-R1. LSIS Co., Ltd. Type: Polycrystalline. Power Range: 250 ~ 260 Wp. Region: Korea. LSIS Co., Ltd Solar Panel Series PVM M250-260P-R1

Always underline the weather condition and human factors and other damaging factors of charger system. The reserved elements can be used to restore of work ability. Microcontroller PIC18 can be programmed by JDM or other kinds of programming device. A main elements of the damaged block are PIC18F452 Контроллер, field effect transistor IRFB4321, Epitaxial Planar NPN Silicon Transistor 2SC5117 1:y, elements BGT4KJS2, transistor BHE 429, optical pair 451T F 817C, resonator H 4.000A5. Simplifieng of the system we can see how is it works simple. This system is danger with his high capable current. This current is about 100-200 A.(depends of type

There is shown damaged controller during the exploitations.


a)

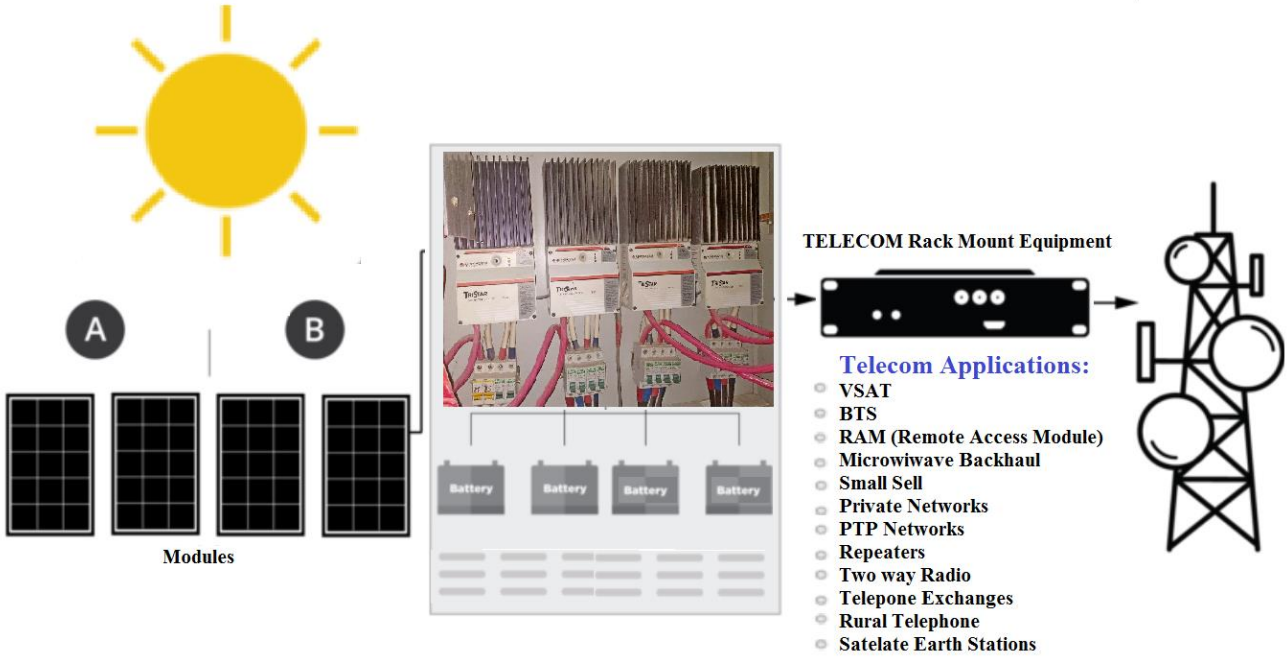
b)

Picture 1. The view of solar system installations (a), and controller board (b).

This powerful current will distroy of system and their elemens if we will not use and control it effeciently. Principe of work this simple system founded to transforn solar beam energy to electrical energy.

A solar charge controllers work like an on and off switch, allowing power to pass when the battery needs it and cutting it off when the battery is fully charged. Most solar chargers are designed for 12 VDC, but we do have limited availability on a 24-volt panel. Typically, when 24 volts or greater is needed, solar panels may be wired in series, or we can special order solar panels that are made to deliver more DC Volts such as 12V, 24V, 36V, 48V, 60V etc. [7]. Solar battery charge controller Alternative energy sources are becoming popular every year, penetrating into all areas of life. However, with the seeming simplicity of introducing innovative ways to obtain inexpensive energy, the implementation of any project will require considerable effort. Projects designed to introduce alternative methods of energy supply to residential buildings are justified. The Transistor use as a Switch and to operate as relays, to switch on motors, lamps , battary chargers and other such loads.

of battary system)



Picture 2. The flowchat view of the system installations (a), controller board (b).

However, high power devices such as battary chargers, motors, solenoids or lamps, often require more power than that supplied by an ordinary logic gate so transistor switches are used IRF. A feature of a hybrid inverter is precisely the possibility of parallel operation with an alternating current source - grid or generator - in inverter mode. [3]. A hybrid inverter can use energy from batteries charged from a renewable energy source, along with energy from the grid / generator, without disconnecting from the grid. In this case, it should be possible to set the priority for a DC or AC source; For example, when prioritizing a DC power supply, the load is primarily powered by the batteries, and the missing power is taken from the AC power supply. It is often possible to limit the current or power that is drawn from the mains or generator. Some hybrid inverters have the ability to add inverter power to AC power. This feature is very useful if the AC source has a limited capacity that is not sufficient to supply the peak load. In this case, the maximum current that can be taken from the mains or generator is set in the power supply unit, and the missing power is taken from the batteries and mixed into the mains. Thus, the load can be supplied with a power equal to the sum of the powers of the inverter and the AC source (mains or generator).

Conclusion: In the end considered all aspects of the develop the efficiency. Looking at

the situation we must develop practical approach analyzing of parameters and properties of the elements. The main important element of the damaged block is software of the PIC18F452 controller and semiconductors. (pic.1b). It demands to make repair of the damaged block.

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