SMALL FROM HYDROELECTRIC POWER STATIONS IN USE THE WORLD EXPERIENCE

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Abstract: Latin America small hydropower of constructions increase from the head is forgiving and this him in the market the most fast developing to the region is turning .

Keywords: Small hydroelectric plants, hydropower of Uzbekistan, Small hydroelectric plants, Small hydroelectric plants are their types.

Enter

Small of hydropower again one important advantages one this is thriftiness . Current at the time natural energy sources oil coal . gas decreased and more expensive going one at the time little by little Pomegranate and my river from energies use cheap in the price electricity energy with provide enable will give . Small HPPs to build and assembly to do a lot of work light to be them construction started from the day from 15-18 months complete to work drop off can

Main the text

Global is small hydropower market last in years stable and again recoverable energy the solution as significant to the pace have it has been . Small hydropower when you say usually one how many from kilowatts one how many to megawatts has been to power have from hydroelectric plants electricity energy work release is understood . Global is small hydropower of the market to growth one how much factors reason is happening First , the greenhouse gases emission reduce and climate to change against to fight attention getting stronger going again recoverable energy sources to apply impulse it has been . Small hydropower projects this to goals to reach big contribution adds because they are harmful a pollutant substances without taking out clean energy work releases Secondly , water of resources abundance , esp rivers , streams and natural waterfalls has been in the regions small hydropower decentralized electricity energy work release for comfortable option turns However , the market is also specific restrictions and to difficulties face is coming Small hydropower projects with depends high initial investment and complicated

regulatory and legal base market to growth hindrance to do can From this besides , the river in the ecosystem changes and fish migration patterns such as to the environment effect to do with depends concerns caution with seeing exit and softening requires measures . This to difficulties although small hydropower market main trends and to opportunities witness is happening Technological development innovative and efficient turbine of systems development take came , this while energy high conversion rates and project economy improve enable gave From this besides , remote monitoring and control to do systems such as digital of technologies integration small in hydroelectric plants work efficiency and technical service to show practice increased From this except , the market villages electrification and from the network except applications for big opportunities present is enough Small hydropower projects main electricity to the network not connected edge regions electricity energy with provide that in the regions life quality increase and economic development enable will give .

Global is small hydropower market capacity , type , application and region based on into segments divided To the power according to market micro hydropower (up to 100 kW), mini hydropower (from 101 kW to 1 MW) and small divided into hydropower (from 1 MW to 30 MW) . Type according to market the river flow , hydropower and to others divided Application according to market residential , commercial , industrial and to others divided Regions according to market North America, Europe , Asia Calm down Ocean , near East and Africa and Latin to America divided

Power from 1 MW to 30 MW until has been small hydropower in the market the most big the segment represents This segment is large in quantity from hydropower use and of consumers wide scope electricity energy with provide ability because of in the market superiority does Small hydropower projects usually average water flow has been rivers and in streams is set , this while stable and reliable energy work release process provides . These are projects most of the time local community with in collaboration work because they are regional to progress contribution adds and employment opportunities creates

Other on the other hand , mini hydropower segment in the market the most fast developing is a segment . Power from 101 kW to 1 MW until mini hydropower projects decentralized electricity energy work to issue validity because of acceptance of being done to increase witness it has been . This projects main electricity to the network connection expensive or technical in terms of difficult has been from the network except and long regions for is ideal . Mini hydroelectric power stations local

energy needs satisfy the villages electrification and stable development support for wide scope solution offer does

Industry sector small hydropower in the market the most big the segment represents Industry own activities power up for big amount requires energy and small hydropower stable and thrifty the solution present is enough Industry objects clean electricity energy work release for near around water of sources from strength use it is possible their traditional energy sources dependence reduces and carbon track reduces Industry to the fields integrated small Hydroelectric power stations continuously to work provided without reliable and continuously electricity energy the source provides . Industry of the sector big energy demand and significant level thrift potential him small hydropower technology famous acceptance to the doer turns

Other on the other hand , housing sector small hydropower in the market the most fast developing is a segment . The world of the population increase , urbanization and in residential areas energy of consumption growth decentralized and clean energy sources demand strengthens Small hydropower projects constant and reliable water flow there is has been rivers , rivers or waterfalls nearby residences ideal solution for offer does Home owners and teams their own electricity energy work release for small hydropower of possibilities their uses it is possible their to the network dependence reduces and energy expenses reduces From this apart from the residential sector stable life and again recoverable energy sources interest increased going this in the segment small of hydropower fast to growth help will give .

From this except , of the region comfortable geographical There are many , including the landscape rivers and mountainous lands small hydropower projects development for wide opportunities creates Strong projects and continue doing technological achievements with Asia-Pacific the ocean small hydropower in the market his own superior position save stay is expected . Small hydropower in the market the most fast developing region Latin America is considered This is the region one how much factors under the influence of fast to grow witness is happening Brazil , Colombia and like Peru Latin America countries again recoverable energy goals reach and digging removable to fuel dependence in reduction small hydropower they recognized their possibilities . The region is rich in water resources , including the Amazon River and another large the river systems small hydropower development for big opportunities creates From this except for the government supportive policy , convenient regulatory and legal bases and again recoverable to energy investments encouragement Latin in America small hydropower of the

market growth for comfortable environment created

Summary

Electric energy work issuer small hydropower objects conditional respectively three per group : up to 5000 KVI power mini» GES. 3-100 kV: power " micro " HPP and it's done capacity up to 25 MW has been small to hydroelectric power stations is divided . Micro and mini GES villages . farming farms . also mills . edge in the regions big didn't happen work releases mountainous and to go difficult has been places near in the middle electricity transmission network didn't happen regions for reliable ecological clean compact . himself expenses fast vindicator energy are sources . Because this in the regions now and later also electric transmission networks to build micro GESlami to build relatively it is expensive . Not big electricity stations nature the landscape . environment not only to use in the process . perhaps construction save in the process to stay enable will give . Small HPPs to use in the process of water to quality negative the effect is heavy . of water initial natural composition preserved remains

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