SEGA 04
The 4th International Conference on Sustainable Energy and Green Architecture
Eco Buildings Innovation and Indoor Air Quality
Bangkok, 30-31 March, 2015

PD01

CURRENT ISSUES OF SOLAR FARMS CONCERNING NATURAL DIASTER IN THAILAND

Chaiporn Suphahitanukool[1], Issaree Hunsacharoonroj[2], Joseph Khedari[2], Jompob Waewsak[3], and Jongit Hirunalbh[4]

[1]Rattanakosin College for Sustainable Energy and Environment (RCSEE), Rajamangala University of Technology Rattanakosin, 96 Moo 3, Puthamonthon Sai 5, Salaya, Puthamonthon, Nakhon Pathom, 73170, Thailand.
[2]Kasetsart University, Faculty of Architecture, Thailand
[3]Taksin University, Thailand
[4]Bangkok Thonburi University, Thailand.

ABSTRACT

Recently the renewable energy as alternative energy like solar cell has received considerable interest among the Thai industrials in accordance with the present policy of Thailand Government giving the concession opportunity to private company for acting as Independent Power Producers (IPPs) encouraging business investment. At present, there are Solar farm owners already completed installation and sell Solar Energy which generated electricity to concerned authority. Not only prior step of the Solar Farms installation requires several steps planning, area selection, land removal, equipment selection, construction design, approval certificate to operate of Thailand Government, surrounding area protection, safely plan, organization and operation plans, etc. , but also have to concern with issuing or actual problems which may be occurred during construction, production and maintenance period. In the contrary, Solar Farms could expose to disasters such flood which bring huge and swift damage to the Solar Farms industrial. Then, the investor should be concerning with Solar Farms issue and plan for them.

INTRODUCTION

The generation Thai Electricity Supply Industry include SPPs(7%), EGAT(47%), import(5%)and IPPS(3%) respectively since December 2010. For Independent Power Producer (IPP) is mean any entity that owns or operates an electricity generating facility that is not included in an electric utility's rate base. This term includes, but is not limited to cogenerations and small power producers and all other nonutility electricity producers, who sell electricity(http://en.openei.org/wiki/Definition, 2014: EGAT, 2012 and, Pei Yee Woo, 2005). IPPs are presented as an attractive option because they are supposed to facilitate investment where a bankrupt public sector can barely afford to make ends meet; and because they allow the private sector to operate without the need for lengthy regulations to be in place beforehand, the conditions of operating can be specified in the terms of the IPP contract. IPPs are heralded as the start of further liberalization and subsequent privatization of electricity. (Kate Bayliss, 2000). The benefits of IPPs have greatly exaggerated. IPPs are just one means of financing expansion of power generation but we have shown this is fraught with difficulties. The financial burden imposed by IPPs is recognized. However, the solution commonly proposed is to privatize the rest of the electricity sector, which simply extends the dangers of a financially unsustainable solution. As we have seen in the Dominican Republic, service provision has deteriorated badly after both generation and distribution services were privatized, but there appears to be a reluctance to learn lessons of experience. Despite blackouts of up to 24 hours following privatization of electricity generation and distribution, in April 2000 it was reported that the Dominican Republic will privatized electricity transmission in order to comply with World Bank conditions (Kate Bayliss, 2000 and,Pei Yee Woo, 2005). The Thailand ‘s existing and planned capacity (MW) for IPP have increased during the year of from year 2002(1,400 MW) to years 2009(8,010 MW). EGAT(2002). In correspondence, the recently on 4th December 2014 by the Energy Regulatory Commission (ERC), an independent regulatory agency of the Royal Thai Government responsible for the