

# **42 JPY/kWh purchase price for solar energy raises concerns over massive financial burden — Expansion of subsidies, costs of comprehensive revision of the energy infrastructure... To what purpose is this fiscally ruinous policy?**

GEPR Editorial Staffs

## **Will subsidies actually reduce solar energy costs in the future?**

The procurement cost appraisal committee (chaired by Professor Kazuhiro Ueta of Kyoto University) of the Ministry of Economy, Trade and Industry that has studied the details of the renewable energy feed-in tariff (FIT) beginning in July of this year has submitted a proposal to set the purchase price for solar energy at 42 JPY/kWh.

Should this proposal be accepted, the power companies in Japan will be required to purchase solar-generated electricity at a cost of 42 JPY per kilowatt hour from July onward. Under the FIT, power companies will be able to tack on the expenses necessitated by the purchasing of renewable energy to customer's electrical bills, meaning that there is a high probability that energy costs will increase in the future. Proponents of renewable energy likely welcome the aforementioned proposal, but is it truly beneficial for Japan? We will limit our scope to solar energy in particular, and examine the problems with the purchase price of 42 JPY/kWh below.

The purchase price of 42 JPY/kWh for solar energy generation is based on a report by the Cost Investigation Committee of the Cabinet Energy and Environmental Council released in December 2011. In this report, a "radically" revised cost of generation was displayed for each energy source in light of the recent earthquake. According to this report, while the cost of generating nuclear power rose considerably from 5.9 JPY/kWh to 8.9 JPY/kWh, renewable energy, particularly solar energy, was rated "very optimistic". It states that in 2030, due to economies of scale and extended life, the cost will drop to 9.9 to 20 JPY/kWh for home solar cells, and 12.1 to 26.4 JPY/kWh for mega-solar plants.

However, there are issues with this evaluation. Though we plan to discuss the details in another article, the main problems that can be raised are that the cost of integrating these systems into the existing power grid was not included in the calculations, it evinces the optimistic outlook that renewable energy sources such as solar will become remarkably less expensive, and that it did not include the external cost that were included for nuclear power. (Regarding external cost, we would like readers to refer to the GEPR article

Among these, the fact that the cost of systematization measures was not included is a problem. For power generation like solar power that is dependent on the weather, the volume of power generated varies from moment to moment. It is not possible to funnel this power into the power grid as is. For this reason, costs will be necessary for measures to stabilize the grid. An accurate estimate has not been made of this amount, but if one considers that small and medium-scale solar power generators will be introduced throughout the country, it is certain that it will amount to a significant expense.

To attempt to pass off renewable energy off as low cost deliberately without including such absolutely necessary costs in the cost of energy production can only be called arbitrary. It is easy to surmise how risky it is to promote renewable energy and heavily subsidize it based on this evaluation.

## **Why repeat a policy like FIT that has failed in Germany?**

The solar power FIT has already broken down in Germany. In February of this year, Germany announced that they would revise the FIT that they had instituted up to that point, and reduce the limitations on purchase volume and purchase prices. A major reason for this is that the FIT led directly to increases in energy cost burden of consumers of electricity. In Germany, the share of expenses for purchasing renewable energy borne by the typical household in Germany exceeded an average of 1,000 JPY per month, with half of this amount accounting for solar power. Maintaining the current system would lead to further increases in this share.

The revision of Germany's FIT system is tantamount to declaring the failure of Germany as the "pioneers" of FIT. The plan for

the FIT system in Japan is essentially unchanged from that of Germany. That is to say, there is a high likelihood that will fail in the same way as Germany did. Why does Japan not study and learn from the precedent of Germany's failure? Japan is ridiculed as being "behind the times" compared to advanced nations such as Germany when it comes to renewable energy, but if this is so, rather than simply stressing the implementation of introducing solar power in Germany, must we not learn from their failure?

Furthermore, from the perspective of energy security, it is important to diversify the methods (fuel) of power production. In this sense, the stance of reliance on only nuclear or thermal power is also nonsensical. To be sure, renewable energy, including solar, is indeed one of a variety of options. At the same time, however, whether or not it is feasible financially is also an important angle to consider.

No matter how beneficial renewable energy may be, if it should skew the nation's economy, then our priorities are backwards. If solar energy is actually economically feasible, it should be given appropriate support. However, investing enormous funds in a source of energy that is 4.6 times more expensive than nuclear power (and this is based on results that arbitrarily depicted nuclear power as more expensive and solar as less expensive) at this point in time is something to be avoided, as one can understand by observing Germany's failure.

The outage of nuclear power caused the proportion thermal power generation to increase, resulting in a sudden rise in fuel procurement costs. Due to this, national resources have depreciated at a rate of approximately 10 billion JPY per day, for a total of roughly 3 trillion JPY per year. Setting the purchase price of solar energy to 42 JPY/kWh will spur the further disappearance of the nation's wealth. Whether we attempt to cover it with taxes or lump it in with electricity bills makes no difference, in the end it will be the citizens of Japan who will bear the cost.

In other words, if we continue on this way, it will only impoverish the average citizen. This is an issue which threatens the property rights of the people guaranteed by the Constitution, and cannot be overlooked. Somehow it seems that the center of this country is possessed by a great spirit of poverty. The motions to bankrupt Japan have now become actual policy. Must we not face this fact and consider it seriously?