Financing a photovoltaic project in Greece

by Dr. Yannis Kelemenis and Iro Stamataki, Kelemenis & Co.

Investment interest in renewable energy sources and particularly in solar/photovoltaic (PV) projects has been booming in Greece over the last couple of years. This development has been spearheaded by Greek legislation which provides for generous state subsidies for the construction of PV units and for attractive feed-in tariffs. Nonetheless, the growing interest has not been trouble-free, particularly due to the overwhelming number of applications, often of an opportunistic nature, which have delayed licensing procedures by the Greek Energy Regulator (RAE). Interestingly, a secondary market has arisen in Greece, in which the applicant investors sell their projects, either before or after the granting of the various necessary licenses, to investors, often from abroad, who are financially capable of completing such projects.

The rising investment interest in solar projects

In recent years the Greek energy market has grown remarkably, particularly insofar as the production of electricity from renewable energy sources (primarily wind) is concerned. In 2006 the introduction of legislation supporting solar projects gave an impetus to PV constructions which till then were almost non-existent despite the favourable weather conditions. The new legislation envisaged the construction of new capacity from PV sources, which for both the interconnected (i.e., mainland) and the non-interconnected (i.e., the islands) systems would amount to 500 MW by December 31, 2008. However, investment interest was so keen that applications amounted to a total capacity of almost 5,000 MW. Not surprisingly, the entire licensing regime collapsed as a result of the overflow of applications and the Greek Ministry of Development was forced, in March 2008, to suspend the issuance of all generation licenses concerning PV projects. In January 2009, the licensing process resumed and it now appears that various issues have been sorted out and that the many projects that were in the pipeline will now materialise.

The intense interest in PV projects is based on two pillars. On the one hand, it is the generous subsidies that the Greek Investment Law (Statute 3299/2004, as amended by Greek Statute 3752/2009) provides in support of the construction of PV parks. On the other hand, it is the feed-in tariffs which Statute 3468/2006 (as amended by Statute 3734/2009) provides as a source of guaranteed income for the sale of electricity produced from a PV unit.

The subsidy of PV projects

Statute 3299/2004 on 'Incentives of Private Investments for Financial Development and Regional Convergence' ('Investment Law') provides substantial financial aids and incentives to investments which exceed certain thresholds, i.e:

- For large enterprises, €500,000.
- For medium-size enterprises, €250,000.
- For small enterprises, €150,000.
- For very small enterprises, €100,000.

Qualifying investments are divided into those of the primary sector (e.g., greenhouse, farms, fisheries etc), the secondary sector (e.g., manufacturing industry, energy etc) and the tertiary/services sector (e.g., hotel units, conference centers etc). PV units belong to the so-called 'secondary sector' and, according to the Investment Law (article 3 (1) b.vi) before its amendment with recent Statute 3752/2009, fell into the definition of investment plans in the renewable energy sector (i.e., wind, solar, hydroelectric, geothermic energy and biomass) regardless of the projected installed capacity. Following the amendments introduced by Statute 3752/2009, the Investment Law now excludes from its subsidies and incentives all PV units whose capacity exceeds 2 MW. Nonetheless, the new exception relates to applications that were filed with the Greek Energy Regulator (RAE) after the modification of said article, i.e., after January 23, 2009.

According to article 1 of the Investment Law, the available financial incentives are divided into four categories:

(a) Cash grants covering in part the costs of the investment plan. According to article 3 of the Investment Law, costs may refer solely to the fixed assets of the qualifying corporation. Such costs may concern the construction or the expansion of the facilities of a PV unit and its connection to the grid, which, under Greek law, is owned by the Public Power Corporation S.A. (the so-called DEI);

(b) leasing subsidies for the acquisition of new equipment under the investment plan;

(c) tax relief in relation to the cost of the qualifying investment; and

(d) payroll subsidies relating to employment positions created within the first three years from the completion of the investment. The subsidy is paid for a period of two years.

The first two financial incentives can be granted together, while the other two can only be granted exclusively.

Crucially, the subsidy varies according to the seat of the qualifying unit. According to article 2 of the Investment Law, the whole of Greece is divided into three major investment zones (A, B, and C), as follows:

(a) zone A includes the Attica and Thessaloniki prefectures, not including the Industrial Enterprise Zones and the islands of these prefectures, which fall under zone B;

(b) zone B includes the prefectures of Thessaly, South Aegean, Ionian islands, Crete, Central Macedonia, Western Macedonia, and the remainder of mainland Greece; and

(c) zone C includes the prefectures of Eastern Macedonia, Thrace, Epirus, North Aegean, Peloponnese and Western Greece.

Due to the fact that zone A is the most developed area and zone C the least developed one, benefits increase from zone A to zone C. Thus, according to article 4 (1) of the Investment Law, the possible subsidies – cash grant and/or leasing subsidy or cash grants for wages – amount to 20% for zone A, 30% for zone B and 40% for zone C. Alternatively, the income tax exemption may amount to 60% for zone A and 100% for zones B and C. Statute 3752/2009, which amended the Investment Law, aimed at encouraging the tax relief incentive. Thus, the tax relief refers to the non-payment of income tax from the non-distributed profits of the corporation. This tax relief has a duration of 10 years from the execution of the investment plan.

If a company qualifies and falls under the provisions of the Investment Law, the investor must invest at least 25% from own funds (article 5 (3) of the Investment Law). Fifty percent of the financial aid is paid after the completion of 50% of the works, while the remaining 50% is paid after the completion of the whole project and the commencement of the unit's operation (article 8 (1) of the Investment Law). However, it is possible that 50% of the subsidy is paid in advance, if a Greek bank grants collateral security equal to this amount increased by 10%. All financial aids granted according to the Investment Law are exempted from any tax, stamp duty or charge payable to the State. Last but not least, when the project is a major one and falls under the provisions of the Investment Law, banks are often willing to grant a loan to the investor. Consequently, such projects become more than feasible and in the end require own funds to a very limited extent.

The fixed 'feed-in tariffs'

According to article 27A of Statute 3734/2009, which amended Statute 3468/2006 on the production of electricity from renewable energy sources, the pricing of electricity produced from PV stations follows the tariffs shown in Figure 1.

The Power Purchase Agreement (PPA) for the sale of electricity from a PV unit is concluded for a period of 20 years for the prices indicated in Figure 1, depending, of course, on the time that the unit starts operation.

Figure 1: Fixed 'feed-in' tariffs (€/MWh)

Year / month	Interconnected areas		Non-interconnected islands	
	A	B	C	D
	>100 kW	<=100 kW	>100 kW	<=100 kW
February 2009	400.00	450.00	450.00	500.00
August 2009	400.00	450.00	450.00	500.00
February 2010	400.00	450.00	450.00	500.00
August 2010	392.04	441.05	441.05	490.05
February 2011	372.83	419.43	419.43	466.03
August 2011	351.01	394.88	394.88	438.76
February 2012	333.81	375.53	375.53	417.26
August 2012	314.27	353.56	353.56	392.84
February 2013	298.87	336.23	336.23	373.59
August 2013	281.38	316.55	316.55	351.72
February 2014	268.94	302.56	302.56	336.18
August 2014	260.97	293.59	293.59	326.22
For every year n from 2015 onwards	1,3 x aMSPn-1	1,4 x aMSPn-1	1,4 x aMSPn-1	1,5 x aMSPn-1

aMSPn-1 = average marginal system price during the previous year n-1

Source: Article 27A of Statute 3734/2009.

As shown in Figure 1, the initial feed-in tariff is fixed for an initial period of 18 months, during which either a pilot operation or the actual operation of the PV station must commence. If this does not happen, the applicable feed-in tariff will be the one in force at the time of the actual commencement of the pilot or actual operation of the station.

The feed-in tariffs of Figure 1 are readjusted every year by 25% of the consumer price index of the preceding year, as this is defined by the Bank of Greece. If the price (after having been readjusted according to the above) is lower than the average marginal system price, as determined in the preceding year and increased by 30%, 40%, 40% and 50% for, respectively, the PV stations falling under columns A, B, C and D, it will be the latter pricing that will apply (i.e., the average marginal system price as determined in the preceding year increased by the percentage of the applicable column A, B, C or D). It must be noted that pricing is far more favourable for smaller rather than larger PV units.

Conclusion

Financing a Greek PV unit has proven both a feasible as well as an attractive exercise over the past two years for both investors and banks. Our experience of acting as advisors to such projects indicates that the heavily subsidised construction cost and the secure, guaranteed income that such units generate ensure a sound financing arrangement which reduces investment risks substantially and makes banks, when asked, quite willing to finance them. This is a model that has worked very well in the case of wind farms in Greece and is now moving into the solar sector too. Prospects, despite the reduction of feed-in tariffs in January 2009, remain good and indeed so good that they attract 'investors' acting opportunistically. In fact, there are numerous applications and licenses held by investors who eventually turn out to be incapable of completing their projects. As a result, a secondary market has arisen in Greece, in which these investors sell their licenses (i.e., the vehicles that own these licenses) to investors who are capable, financially and technically, of completing such projects.

Dr. Yannis Kelemenis, Managing Partner
Email: yk@kelemenis.com

Iro Stamataki, Associate
Email: stamataki@kelemenis.com

Kelemenis & Co., 5 Tsakalof Str., Kolonaki, 10673, Athens, Greece
Tel: +30 (210) 361 2800
Fax: +30 (210) 361 2820
Email: enquiries@kelemenis.com
Web: www.kelemenis.com