Analysis of the regulatory framework
Governing network access for producers
of electricity from renewable energy sources
in Tunisia

A prefeasibility study examining potential avenues of development
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INTRODUCTION

The aim of this study, which has been conducted on behalf of Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ) GmbH, is to provide a legal pre-feasibility analysis of the development of legal instruments for use by foreign private operators in the renewable energy and, more particularly, the solar energy sector in Tunisia.

Our brief was to examine opportunities for promoting the production of electricity from renewable energy sources within a managed legal and financial context, taking as the main avenue of development a number of legal structures and models, such as leasing and energy service companies (ESCO), which already exist in Tunisia.

More generally, the study shares the approach already adopted in the Mediterranean Solar Plan (MSP), which aims to promote the use of energy efficiency technologies and renewable energy sources in the countries of the Southern and Eastern Mediterranean (SEMED), to improve the energy situation in the region and to prepare for and promote the export of electricity produced from renewable energy sources. These aims are shared by the Tunisian Solar Plan (TSP), which was created to coordinate the launch of concrete energy consumption rationalisation programmes in Tunisia.

The study is divided into three parts starting with an overview of the current position.

The first part sets out to provide a general picture of the regulatory framework which currently governs electricity network access in Tunisia and the various schemes applicable to the production of electricity from renewable energy sources. It is based on an examination of the conditions of access to the Tunisian market for non-resident (or foreign) private investors which, identifies the factors likely to help or hinder the development of projects using renewable energies.

As the easiest form of renewable energy to integrate into an existing built environment and the most efficient for the construction of local production plants at major sites of consumption, the study concentrates primarily on photovoltaic energy.

Included in this general picture is a description of the regulatory developments scheduled for implementation in the short term which were the focus of discussion as the study was conducted. They relate to the Tunisian Law on the Production, Sale and Export of Electricity produced from Renewable Energies (Loi relative à la production, la vente et l'exportation de l'électricité produite à partir des énergies renouvelables) and the draft of the new Tunisian Investment Code (Code de l’investissement).

The second part aims to provide an overview of the various mechanisms by which the private sector can play a role in the production of electricity from renewable energy sources in Tunisia.

Each of the studied mechanism is situated in its regulatory context and subject to a critical analysis designed to assess whether or not it represents a feasible and profitable option for foreign private investors.

The study then examines in detail the opportunity for and pre-feasibility of the development of development models such as leasing and energy service companies (ESCO), taking into account feedback both from experience and from these models, which could potentially be used as avenues of development by private operators in this sector. Such an analysis must clearly consider:

- the advantages and disadvantages of the various methods of installing solar systems taking into account the financing options available to local and foreign investors;
- the major regulatory constraints imposed property and planning law in Tunisia, i.e., the planning permission process and the provisions of the Tunisian Property Code (Code des droits réels), which may impact on project implementation and the securing of developer’s property rights.

This backdrop, the major elements of the study are:

- An analysis of the regulatory framework governing energy production using existing or transferable production models and structures, in particular for photovoltaic energy;
- Identification of the strengths of leasing and ESCO-type schemes and, where applicable, the weaknesses and problems to be addressed when using them as tools in the development of construction projects for renewable energy electricity generation plants.

The study then examines in detail the opportunity for and pre-feasibility of the development of development models such as leasing and energy service companies (ESCO), taking into account feedback both from experience and from these models, which could potentially be used as avenues of development by private operators in this sector.
In very general terms, it is true that though Tunisia was regarded as an oil and gas exporting country throughout the 1970s and 1980s, since the 1990s it has become an importer due mainly to an explosion in domestic consumption.

Today, its energy resources are principally made up of fossil fuels with the production of hydrocarbons (oil and natural gas) (in particular from the operation of the trans-Mediterranean Algeria-Tunisia-Italy gas pipeline).

Tunisia is currently witnessing a significant drop in the production of these national primary energy resources which, seen in the context of a significant increase in consumption (4.5 Mtoe in 1990 as against 8.5 Mtoe in 2012), is helping to aggravate the chronic national energy deficit currently estimated at 1 Mtoe. In addition, observers have noted a significant change in the distribution of these national resources within the mix, highlighting a reduction in oil and an increase in natural gas production. This trend is likely to be continued in 2013 creating an energy deficit of 2.4 Mtoe.

As a result, Tunisia’s electric mix is today largely dominated by fossil fuels, a large percentage of which are imported. These fuels go to produce more than 98.8% of the electricity generated in the country, leaving only a tiny percentage of electricity produced from renewable energy. In 2012, the percentage of such renewable energies in the Tunisian electric mix was considered “negligible” and evaluated at less than 2% of annual national electricity production.

To promote and support the desire to diversify its resources and increase the percentage of electricity produced from renewable energy sources, STEG, Tunisia’s national gas and energy producer, has created a subsidiary dedicated to renewable energies.

The very low percentage of renewable energies in the energy mix must, however, be also seen in conjunction with Tunisia’s implementation of its own Tunisian Solar Plan which seeks to achieve greater openness to renewable energy sources in the Tunisian energy mix by 2030. The plan aims to achieve a mix in which 30% of its electricity is produced from renewable and 70% from conventional energy sources.

In light of this potential combined with the need to replace conventional energies, Tunisia has created a legislative framework for the implementation of a national energy and renewable energies development programme, which includes Law No. 2009-7 (Loi n° 2009-7) and its Implementing Decree No. 2009-2773 of 28th September 2009 (Décret d’application n° 2009-2773 du 28 septembre 2009), both of which open up various investment and development opportunities to private operators.

The fact that a new regulatory framework for renewable energies is currently being drawn up and scheduled to come into force during 2014, is evidence that the market is taking shape and likely to expand in the near future. Set against the backdrop of the political changes currently taking place in Tunisia, this initiative confirms the country’s determination to increase its energy autonomy and maintain a major strategic place in the development of renewable energies in the Mediterranean.

Any plan to develop an electricity generating plant using renewable energy sources requires significant investment with almost all of the investment expenditure needing to be released at the construction stage.

However, not only do the finance and investment costs of such schemes represent some 80% of total project costs (operating and maintenance costs being marginal); in addition, their profitability is guaranteed only if the plant continues to produce electricity at the estimated rate for a number of years.

As a result, if a scheme to produce electricity from renewable energy sources is to secure adequate finance, it must have a clear and sustainable regulatory framework.

This part of the study aims to provide a general summary of the regulatory framework governing access to the electricity network followed by a review of the major electricity generation options available to producers in Tunisia.

Our examination of this legal framework is necessarily based on an analysis of the energy supply agreement which STEG issues to its consumer and which is a precondition for supplying the Tunisian electricity network. The study then goes on to analyse the provisions of STEG’s purchase agreement which contains a number of specific provisions relating to the connection of electricity generating plants to the network.

1. Such as, for example, the recent announcement of the opening of two 240 MW gas turbines at Bizerte (June 2015).
4. The definition of “renewable energy” used throughout this document is that offered in Directive 2001/77/EC of 27 September 2001 on Energy produced from Renewable Sources which defines “renewable energy sources” as meaning “non-fossil energy sources (wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas and biogas)”.
5. Source: Tunisian National Institute of Statistics – based on the hypothesis that the Tunisian population will grow to approx. 12.4 million by 2030 (as against 10.2 million in 2007).
THE REGULATORY FRAMEWORK GOVERNING NETWORK ACCESS IN TUNISIA

2.1 The Tunisian electricity supply agreement

Under the current regulatory system, prior to any connection to the electricity network a producer must first win a contract to supply electricity to STEG.

As we shall see below, this contract is vital since if a producer is to be eligible for one or other of the schemes listed below installed capacity for the purposes of operating a renewable energy power station may not exceed the capacity subscribed (Tunisian Decree 2009 67-73 of 29 September 2009, Décret 2009 67-73 du 28 septembre 2009).

What is the Tunisian "electricity supply agreement" and how does it work?

It should be remembered that Tunisia has a centralised connection, transmission and distribution system run as a monopoly by Tunisia’s national electricity and gas utility company, STEG. STEG was created in 1962 by Legislative Decree No. 62-08 of 3 April 1962 (Décret-loi n°62-08 du 3 avril 1962) ratified by Law No. 62-16 of 24 March 1962 (Loi n° 62-16 du 24 mars 1962). This statute gives it a monopoly over the production, transmission and distribution of electricity throughout Tunisia.

The first section of this law states that “the production, transmission, distribution, import and export of electricity and fuel gas shall be nationalised with effect from the promulgation of this legislative decree”. It gives STEG the status of a financially autonomous “public commercial and industrial body” with legal personality.

STEG is governed by the Tunisian legislation and regulations applicable to public limited companies and is subject to ordinary tax law.

It is still the sole transmission network manager in Tunisia and as such the only partner available to a generator wishing to connect a power station to the national grid. STEG is also the sole owner, and responsible for the maintenance and repair of the equipment connecting subscriber installations to the STEG network.

The terms and conditions of access to the transmission network are determined by the provisions of Tunisian Decree No. 64-9 of 17 January 1964 (Décret n°64-9 du 17 janvier 1964) which sets out the content of the “Specification for the supply of electricity across the whole of the Republic”.

This Specification is still in force and stipulates that any supply of electricity is subject to the signature of a written agreement between STEG and the subscriber. This docu-

There are currently two types of agreement in force for the supply of medium and high voltage electric power (Appendix No. 1: Agreement for the Supply of Medium Voltage Electric Power; Appendix No. 2: Agreement for the Supply of High Voltage Electric Power).

These agreements commence on the effective date specified in the agreement (as indicated in the special terms and conditions) and run until 31st December of the same year. They are then renewed tacitly for further periods of one year, unless notice of termination is served by one of the parties by registered letter at least one month prior to expiry of the agreement. There is also a clause which provides for the automatic termination of the agreement in case of the compulsory liquidation, agreement with creditors, or compulsory administration of the subscriber.

As regards low voltage supplies, STEG simply requires the consumer to sign an application for the supply of electricity subject to the conditions set out in section 22 of the Specification.

Disputes relating to the application of any of the provisions of the Specification are submitted to the regulatory authority for arbitration.

Disputes relating to the performance or execution of the supply agreements (medium and high voltage) are settled in the relevant court.

It should be noted that these agreements provide neither a coercive regulatory framework for dealing with cases in which guaranteed connection times are not met, nor any independent organisation or administrative authority responsible under law for settling disputes relating to connections and the procedures for processing connection applications.
The framework governing connection terms and conditions in France

In France, the procedures for processing connection applications, which are updated on a regular basis, define and describe the stages in the processing of a connection application from a possible preparatory study of connection conditions to the operation of the connection itself. They specify the information to be exchanged and the rules for processing connection applications applied by the network manager. They also indicate the nature of any studies to be carried out prior to the making of connection proposals and the signature of connection and operating agreements. Furthermore, this documentation sets out the undertakings of the network manager in terms of processing times for applications for connection to the public distribution network.

In case of dispute, Cordis, the dispute resolution and sanctions committee of the Energy Regulation Commission (Commission de régulation de l’énergie, CRE) is responsible for ensuring that the processing procedure is followed and, where necessary, for imposing penalties on the network manager. The CRE is an independent administrative authority, which guarantees producers that applications will be processed independently and fairly.

2.2 STEG’s agreement for the purchase of surplus electricity from renewable energy

To ensure a proper understanding of the electricity generation system in Tunisia, the term “purchase”, as it is used in the titles of the agreements discussed below, requires some clarification.

Firstly, it should be noted that, as a government monopoly, only STEG is authorised to buy electricity fed into the network. Indeed, STEG is both the network manager and the buyer of electricity from both independent power producers (IPP) and autoproducers.

Given this situation, electricity produced from renewable energy sources is to be supplied to the network, the producer and STEG have to enter into an agreement for the purchase of surplus energy (Appendix No. 3: Agreement for the Purchase by STEG of Surplus Electricity produced from Renewable Energies and supplied to the Low Voltage Network (Appendix No. 4: Agreement for the Purchase by STEG of Surplus Electricity produced from Renewable Energies and the Sale of Surpluses to STEG).

For a producer to be able to connect a renewable energy power station to the national grid, the installed capacity must be at least equal to the power subscribed by the Producer from STEG. Before connecting its power station to the Tunisian national grid, a producer must first obtain approval from STEG.

Indeed, this explanation corresponds to the situation described in s. 15 of the 1964 specification which states that, in the case of autoproducers, in particular, the subscriber may implement an autonomous means of electricity production in parallel with the network only in compliance with the technical conditions set out in the relevant regulation and after having obtained the prior written consent of STEG. The application for authorisation, which the producer submits to STEG, must comprise a technical report containing the following documents:

- a wiring diagram of the power generation plant;
- a technical description of any autonomous sources of electricity which may, where applicable, feed all or part of the electrical circuits normally supplied by the power generation plant;
- a control and protection diagram for the power generation plant;
- a site plan of the power generation plant indicating the property boundaries and the point of delivery;
- a copy of the producer’s national identity card;
- an application for acceptance and commissioning;
- a certificate of compliance for the uninterruptible power supply as per ERC Directive 2004/108/EC and LVD Directive 2006/95/EC and DIN VDE 0120 or equivalent.

These documents must take into account the technical constraints set out in the Order of 12 May 2011 (Arrêté du 12 mai 2011) issued by the Ministry of Industry and Technology, which approved a Specification dealing with the technical conditions governing the connection and the extraction of electricity from cogeneration and renewable energy plants on the national grid by imposing, for example, the provision of a plant protection plan allowing it to be disconnected instantly from the network in the event of a fault (single-line diagram, plant control and protection diagram, etc.).

Finally, the producer is required to purchase civil liability cover from a Tunisian insurance company covering the financial consequences of its liability for any physical injury, material damage or consequential loss caused to third parties and/or STEG (considered to be a third party) resulting from any negligence, omission, error or other fault committed in the performance of the agreement.

Reduced supporting documentation only is required for purchase agreements entered into under the PROSOL ELEC programme, a scheme examined in greater detail below.

Thus, the beneficiaries of the programme are required to show they have entered into an agreement with the plant prior to entering into a purchasing agreement with STEG (Appendix No. 4: Agreement for the Purchase by STEG of Surplus Electricity produced from Renewable Energies and supplied to the Low Voltage Network for 1 or 2 kWp – PROSOL ELEC Programme Beneficiaries).

This agreement takes effect on the date of commissioning and runs until 31st December for the first year. It is then renewed tacitly for further periods of one year unless notice of termination is served by the parties by registered letter at least one month prior to the end of the current year (s. 17 of the STEG Purchasing Agreement – Low Voltage and s. 18 of the STEG Purchasing Agreement – PROSOL ELEC Programme).

STEG then issues a bill based on (i) the balance if the electricity generated is less than the energy supplied by STEG and (ii) the current purchase tariff set by ministerial decision. If, on the other hand, the plant produces more electricity than is supplied by STEG, the difference is carried forward to the Producer’s next bill in the next billing cycle.

If the decision setting the purchase tariffs or any other legislation or regulations governing the production of renewable energies is amended, such amendments become applicable to current agreements as soon as they enter into effect.

In case of a dispute between a producer and the network manager as to the conditions of application of the agreement, the parties agree to submit the dispute to the ministry responsible for regulating STEG. If this attempt at conciliation proves unsuccessful, the parties then take their dispute before the competent courts. This scheme contains no discriminatory procedures for dealing with foreign subscribers or producers.

2.3 Electricity tariffs in Tunisia

In general terms, and excluding the IPP scheme8 under which electricity tariffs are negotiated, any producer which supplies electricity to the STEG distribution network may, subject to certain conditions, command the same tariff that it pays to STEG. However, the purpose of this study is not to examine the relevance of the method used to calculate the cost of electricity in Tunisia, but rather to provide basic information on electricity tariffs.

In principle, the price of electricity is set annually by the State and calculated on the basis of a range of parameters including the international price of a barrel of crude oil, the financial circumstances of STEG and the other bodies responsible for the networks and the amount of any subsidies granted by or to the Tunisian government9.

There are three separate prices for low, medium and high voltage electricity and different electricity tariffs are calculated for different time slots. The relevant tariffs as published on STEG’s website10 are given below (valid as of March 2014).

8 See 2.2 below.
10 https://www.steg.com.tn/fr/clients_ind/tarifsMt.html
General low voltage

<table>
<thead>
<tr>
<th>Tariffs</th>
<th>Sector</th>
<th>Power charge (mill/kVA/month)</th>
<th>Energy price for each monthly consumption bracket (mill/kWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economy rate</td>
<td>Residential (1)</td>
<td>500</td>
<td>1-50 75 51-100 101-200 201-300 301-500 500+</td>
</tr>
<tr>
<td>Economy rate</td>
<td>Residential and non-residential (2)</td>
<td>108</td>
<td>123</td>
</tr>
<tr>
<td>Economy rate</td>
<td>Residential and non-residential (3)</td>
<td>240</td>
<td>550</td>
</tr>
<tr>
<td>Standard rate</td>
<td>Non-residential</td>
<td>500</td>
<td>136 157 210 270</td>
</tr>
</tbody>
</table>

| Special low voltage |

<table>
<thead>
<tr>
<th>Tariffs</th>
<th>Subscription (mill/kVA/month)</th>
<th>Subcription (mill/kVA/month)</th>
<th>Day</th>
<th>Summer morning peak</th>
<th>Evening peak</th>
<th>Night</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public lighting</td>
<td>–</td>
<td>–</td>
<td>700</td>
<td></td>
<td></td>
<td>200</td>
</tr>
<tr>
<td>Water heaters (6)</td>
<td>–</td>
<td>–</td>
<td>500</td>
<td>Smoothing (7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heating and air conditioning (6)</td>
<td>–</td>
<td>–</td>
<td>300</td>
<td></td>
<td></td>
<td>330</td>
</tr>
<tr>
<td>Irrigation</td>
<td>Uniform (5)</td>
<td>300</td>
<td>500</td>
<td>150</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Three time slots</td>
<td>1000</td>
<td>–</td>
<td>96</td>
<td>NA</td>
<td>270</td>
</tr>
</tbody>
</table>

Abbreviations:

Mil: Tunisian millime; NA: Not applicable; kW: kiloWatt; kVA: kilo volt amp; h: hour; Co: consumption.

(1) VAT applies at the rate of:
- 18% on all charges and the energy price (net of tax) for all uses other than domestic and irrigation.
- 12% on the energy price (net of tax) for residential and irrigation uses
(2) Plus a "municipal surcharge" of 5 mill/kWh
(3) This tariff is no longer available.
(4) Smoothing during the "summer morning peak" (June to August) and "evening peak" during the winter months (September to May) only. All kWh consumed during the "evening peak" in summer (June to August) are billed at 120 millimes.

Voltage level: medium voltage

<table>
<thead>
<tr>
<th>Medium voltage tariffs</th>
<th>Power charge* (mill/kW/month)</th>
<th>Energy price* (mill/kWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Day</td>
<td>Summer morning peak</td>
</tr>
<tr>
<td>Uniform</td>
<td>1900</td>
<td></td>
</tr>
<tr>
<td>Hourly slots</td>
<td>650</td>
<td>139</td>
</tr>
<tr>
<td>Cement works (grey cement)</td>
<td>6500</td>
<td>177</td>
</tr>
<tr>
<td>Pumping for irrigation (6)</td>
<td>–</td>
<td>141</td>
</tr>
<tr>
<td>Agricultural irrigation</td>
<td>–</td>
<td>104</td>
</tr>
<tr>
<td>Emergency supply</td>
<td>3100</td>
<td>153</td>
</tr>
</tbody>
</table>

Abbreviations:

Mil: Tunisian millime; NA: Not applicable; kW: kiloWatt; kVA: kilo volt amp; h: hour; Co: consumption.

(1) VAT applicable at the rate of:
- 18% on all charges and the energy price (net of tax) for all uses other than domestic and irrigation.
- 12% on the energy price (net of tax) for residential and irrigation uses
(2) Plus a "municipal surcharge" of 5 mill/kWh
(3) This tariff is no longer available.
(4) Smoothing during the winter evening peak (September to May) only. All kWh consumed during the "evening peak" in summer (June to August) are billed at 120 millimes.

These tariffs also differ according to time slots.

In addition, with effect from 1st June 2013 to manage power cuts STEG is also authorised to interrupt the electricity supply to customers paying high and medium voltage tariffs with a subscribed capacity greater than or equal to MW.

These interruptions can extend over up to 45 hours per year and take place between 11am and 3pm during June, July, August and September. The scheme stipulates that customers whose power supply is interrupted in this manner, must receive compensation based on subscribed capacity interrupted and non-consumed energy (though the compensation must be at least equal to 1 MW for high voltage and 100 kW for medium voltage customers).

## Power cut compensation

<table>
<thead>
<tr>
<th>Tariff level</th>
<th>Tariff</th>
<th>Subscribed capacity interrupted</th>
<th>Variable compensation (mill/kWh not consumed)</th>
<th>Fixed compensation (mill/interrupted kWh/month)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High voltage</td>
<td>Hourly slots</td>
<td>&lt; 3 MW</td>
<td>204</td>
<td>900</td>
</tr>
<tr>
<td></td>
<td></td>
<td>≥ 3 MW</td>
<td>410</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hourly slots</td>
<td>&lt; 400 kW</td>
<td>212</td>
<td>1950</td>
</tr>
<tr>
<td></td>
<td></td>
<td>≥ 400 kW</td>
<td>416</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Uniform</td>
<td>&lt; 400 kW</td>
<td>212</td>
<td>500(3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>≥ 400 kW</td>
<td>465</td>
<td></td>
</tr>
</tbody>
</table>

(1) Decision of the Minister of Industry on 5 March 2013
(2) Tariff applicable under the electricity supply agreement
(3) Mill/Interruptible kVA/month

## Voltage level / High voltage

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Day</td>
<td>Summer morning peak</td>
</tr>
<tr>
<td>Four time slots</td>
<td>6000</td>
<td>135</td>
</tr>
<tr>
<td>Cement works (grey cement)</td>
<td>6000</td>
<td>170</td>
</tr>
<tr>
<td>Emergency supply</td>
<td>2300</td>
<td>151</td>
</tr>
</tbody>
</table>

**Abbreviations:**
- Mill: Tunisian millime
- kW: kilo Watt
- kWh: kilo Watt hour

(1) VAT is applicable at the rate of:
- 18% on all charges and the energy price (net of tax) for all uses other than irrigation.
- 12% on the energy price (net of tax) for irrigation use.

(2) Plus a “municipal surcharge” of 5 mill/kWh

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3. **AN OVERVIEW OF PRIVATE SECTOR INVOLVEMENT IN ELECTRICITY GENERATION IN TUNISIA**
STEG currently still holds a monopoly in various areas of the electricity sector including transmission, distribution, marketing and the purchase and sale of electricity.

In terms of electricity generation, on the other hand, the regulatory and institutional framework governing electricity production has been opened up to the private sector. STEG no longer holds a monopoly in the strict sense of the term because the market is now open to:

- IPPs operating electricity generating plants under a government licence following an invitation to tender;
- Producers eligible for the PROSOL ELEC programme;
- Autoproducers producing electricity from renewable energy sources under the scheme described in sections 14(b) and 14(c) of Law No. 2005-7 of 9 February 2009 (Law n° 2009-7 du 9 février 2009);
- Producers generating electricity from gas under hydrocarbon operating licences.

Following a brief history of the regulatory framework of electricity production, we will look briefly at the extent to which a producer, whether or not a Tunisian resident, who wishes to develop a project to construct a plant generating electricity from renewable energy sources (in particular photovoltaic energy) might usefully take advantage of these schemes.

We shall provide a summary of each scheme and suggest an index indicating whether or not the scheme can usefully be transferred to the development of a photovoltaic project.

3.1 The regulatory framework governing electricity generation in Tunisia

When Tunisia gained its independence, STEG was given the task of producing, transmitting and distributing electricity which belonged to businesses with different principal activity. 20

This legislation opened the first breach in the energy production system since s. 2 of the statute excludes from nationalisation “electricity and fuel gas production plants belonging to businesses with different principal activity”. No specific framework was created at the time but in our view this provision represents the origin of the autoconsumption scheme set up by the 2009 law (cf. below).

In the 1980s, like many other countries affected by the oil crisis, Tunisia moved towards the promotion of various energy policy programmes and action plans. However, it was not until the advent of Law No. 96-27 of 1 April 1996 (Law n° 96-27 du 1er avril 1996) that STEG’s quasi-monopoly gave way to the introduction into the market of IPPs who were granted electricity production licences permitting them to sell the electricity they produced exclusively to STEG.

Law No. 2004-72 on the Management of Energy of 2 September 2004 (Loi n° 2004-72 relative à la maitrise de l’énergie du 2 septembre 2004) introduced energy management as “one of the national priorities in that it constitutes a principal element of sustainable development and is closely linked with economic and social development (…).” 21

This law set out not only to create an energy production framework and to promote renewable energies, but also to provide tools for rationalising the consumption of this energy.

It was against this backdrop that the Tunisian National Energy Management Agency (ANME) was set up (s. 16 to 18). The ANME’s scope of intervention is very wide and “covers all initiatives and measures designed to improve the level of energy efficiency and diversify energy sources”.

Continuing in this vein, Law No. 2005-82 of 15 August 2005 (Loi n° 2005-82 du 15 août 2005) set up a system for financing the energy management system in order to “support measures designed to rationalise energy consumption, promote renewable energies and achieve energy substitution” (s. 1 Law No. 2005-82). This system makes provision, in particular, for the grant of subsidies to schemes generating electricity from renewable energy sources.

This system developed into the National Fund for Energy Management (Fonds National de Maitrise de l’Energie, FNME) which provides extra-budgetary public support and grants for investments designed to achieve a more rational use of energy and promote renewable energies and energy substitution. The fund is managed by the ANME and funded by a special tax payable on the first registration of vehicles purchased by private individuals (referred to as “touring vehicles” in contrast to “commercial vehicles”).

Under this scheme, the ANME provides grants to producers who carry out energy audits and set up pilot demonstration, cogeneration, energy efficiency pilot projects and contract programmes.

It can also grant certain tax advantages such as the application of minimum customs duties, the suspension of VAT on capital goods and products used for energy management where no equivalent is manufactured locally and the suspension of VAT on locally purchased energy-efficient capital goods.

This scheme, introduced by Decree No. 2005-2234 of 22nd August 2005 (Décret n° 2005-2234 du 22 août 2005)’, has no direct link with photovoltaic installations.

In terms of procedure, s. 2 of the decree creates a technical consultative committee responsible for giving an opinion on the awarding of grants.

Finally, Law No. 2009-7 of 9th February 2009 (Loi n° 2009-7 du 9 février 2009)22 and its Implementing Decree No. 2009-2772 of 28 September 2009 (Décret d’application n° 2009-2773 du 28 septembre 2009)23 supplements the 2004 law on the issues of renewable energy production and, more particularly, the regime applicable to autoproducers.

Having examined the regulatory framework, we shall now set out the principal characteristics of the regimes governing the various types of electricity producer and the extent to which they can be adapted to the development of photovoltaic projects.

3.2 Independent Power Producers (IPP)

3.2.1 The status of IPPs

Law No. 96-27 of 1st April 1996 (Loi n° 9-27 du 1er avril 1996) A regime governing independent production was introduced into substantive Tunisian law by Law No. 96-27 of 1st April 199624 which amends s. 3 of the Decree-Law of 3 April 1962 creating STEG. This section states that, notwithstanding the monopoly granted to STEG when the energy sector was nationalised, “the State may grant electricity production concessions to private persons”.

It leaves the detail of the system to a decree. Accordingly, Decree No. 96-1125 (Décret n° 96-1125) was passed on 20th June 199625. It provides for the granting of electricity production concessions at the end of a tendering process which is described briefly below.

Tendering process for selecting concession holders

Sec. 1 of the Decree of 20th June 1996 stipulates that “the concession of electricity production to private persons, known as independent electricity production, is designed to authorise private persons to produce electricity to be sold exclusively to STEG under the terms of a contract entered into by the two parties”.

The tendering process is launched by the Ministry of Industry, which is responsible for preparing the tender documentation, initiating the consultation process and the opening and assessment of tenders received.

Concession holders are chosen either at the end of an open tender procedure or by a restricted tender procedure preceded by a short-listing process and in accordance with the rules set out by an ad hoc higher independent electricity production commission (Commission interdépartementale de la production indépendante d’électricité, CIPE) set up specifically for each project (s. 8 Decree n° 96-1125).

This process is led by the CIPE on the basis of proposals from the Independent Electricity Production Commission (Commission interdépartementale de la production indépendante d’électricité, CIPE).

Once a concession holder has been selected, the Tunisian government, as the awarding authority represented by the Ministry of Industry, and the IPP (concession holder) sign an agreement, which must then be approved by decree (Law of 1st April 1996 in conjunction with s. 9 Decree of 20 June 1996).

The content of the electricity production concession agreement

S. 3 of the decree sets out the core content of the agreement which must include provisions dealing with the following:

- Published in JORT No. 67, p. 2234.
- Decree No. 2000-3224 of 22 August 2005 provides the following measures: (a) energy audits, performance contracts and pilot consultation, (b) the setting up of vehicle engine test units, (c) solar-powered water heating in the residential and private housing sector, (d) solar-powered water heating.
- Published in JORT No. 70, p. 1836.
- Published in JORT No. 27, p. 693.
the characteristics of the concession;

the term of the concession and the conditions of its en-
try into effect, expiry, termination and, where applicable, extension;

any advantages granted to the concession holder;

the checks and controls the awarding authority may carry out on the concession holder and any information which the concession holder is required to provide;

the conditions of any assignment by shareholders of their holdings in the project company;

the general characteristics of the installations;

the conditions and timetable for the construction and commissioning of the plant;

the permitted use of the buildings and installations at the end of the concession;

the conditions of occupation of the land required for the project;

dispute settlement.

Implementation

It was not until 1999 that the first decree14 on the approval of electricity production concession agreements came into force implementing the scheme in relation to the operation of Radès II Power Station (a 508 MW plant) and confirming the agreement entered into on 24 March 1999 between the Tunisian State and a consortium comprising PSEG Interna-
tional Ltd, Sithe Power International Ltd and Maruberi Power Holding Ltd. This power station started operation in 2002 under the terms of a build own operate (BOO) agreement and by 2010 was responsible for 20% of national production.

A second project producing 13.5 MW was commissioned in 2003 at El Biben. In 2012, the installed capacity of IPPs was evaluated at 484.5 MW.

3.2.2 Adaptability of the IPP scheme

Since it does not exclude any particular energy source, the IPP scheme can be transferred to the photovoltaic sector.

In contractual terms, however, the scheme leaves the project developer relatively little autonomy in what is principally a public initiative defined by a very restrictive specification (construction, site, etc.).

In economic terms, it is difficult to make a clear-cut analysis of the system, since all the billing provisions and, indeed, as a general rule all the provisions of the concession agreement are negotiated when the contract is awarded, something which has only happened twice to date.

That being said, the scheme is nevertheless particularly well suited to large-scale projects in that being a public initiative it focuses on large capacity power stations.

3.3 Autoproduction

3.3.1 The status of autoproducer (general regime)

The regulatory framework governing autoproduction is based in the provisions of s. 2 (3) of the Decree-Law of 30 April 1962, which excludes from nationalisation “electricity and fuel gas production plants belonging to businesses with different principal activity”.

In this provision the legislator was referring to the produc-
tion of electricity by private companies for use in their own industrial activities which existed prior to the entry into effect of the 1962 decree law. Indeed, such plants could not be nationalised under the conditions set out in the afore-
mentioned legislation. It is more than likely that, since such production was accessory to a principal activity, the legislator regarded it as marginal. The status of autoproducer was thus recognised from the outset.

This regime is governed by Law No. 2009-7 of 9th February 2009 (Loi n° 2009-7 du 9 février 2009),15 which supplemented Law No. 2004-72 of 27 July on Energy Management that provides that “any entity or group of entities operating in the industrial, agricultural or tertiary sector and which produces electricity from renewable energy sources for its own consumption shall be entitled to transmit the electricity so produced via the national electricity network to its points of consump-
tion and to sell any surplus exclusively to STEG subject to certain upper limits under the terms of a standard contract approved by the regulatory authority for the energy sector. The conditions of the transmission of electricity, the sale of surpluses and the upper limits shall be regulated by dec-
cree. Projects involving the production of electricity from renewable energies and connected to the national electricity network implemented by the entities specified in the first paragraph of this section shall be approved by decision of the Minister for Energy on the basis of an opinion issued by technical consultative committee” (s. 14bis).

S. 14 (ter) specifies the regime applicable to low voltage projects and provides that “any producer of electricity from renewable energy for its own consumption whose plant is connected to the national low voltage electricity network shall be entitled to sell its surplus electricity exclusively to STEG which undertakes to buy it under the terms of a standard contract approved by the regulatory authority for the energy sector in accordance with conditions set out by decree”.

The decree passed to implement this law, Decree No. 2009-
2773 of 28 September 2009 (Décret n° 2009-2773 du 28
septembre 2009)16 specifies “the conditions of transmission of electricity produced from renewable energies and the sale of surpluses to STEG”.

This decree applies to entities or groups of entities which are autoproducers of electricity from renewable energy sources (s. 1) and requires amongst the documents comprising the application submitted to the ANME to obtain an opin-
ion from the Technical Consultative Committee (CTC) a certificate of company registration of the entity (there is no mention of groups of entities) (s. 4).

For far making the procedures applicable to groups clearer, the decree itself requires classification since, for example, the fact that a “group of entities” is required to provide proof of registration for a project makes it impossible to fulfil the condition that the production of electricity by the group in question must be of an accessory nature.

Example: Om Somaa, Kébili Governorate / In November 2012, a concentrated photovoltaic (CPV) electricity gener-
ating plant for arid zone pumping and irrigation was opened under the autoproduction scheme in Om Somaa to the Tunisian Governorate of Kébili.17

The main conditions of this regime are set out in the table on page 20.

Tariffs for electricity produced from renewable energy sources by autoproduction

High and medium voltage customers: the amount billed is the differ-
ence between the electricity supplied by STEG and the one produced and supplied by the autoproducers. The tariff charged is calculated on the basis of the rate selected by the customer and the time slots in which consumption takes place. Producers who are not STEG customers and emergen-
cy supply customers are billed at the 4-time slot high voltage kWh rate.

As part of a benchmarking exercise carried out to ascertain the extent to which other schemes existing in Tunisia might be transferable, we identified the “hydrocarbons regime” which is analysed briefly below. We thought it would be useful to analyse this regime, which is similar in many ways to the autoproduction regime discussed above, in order to assess whether it might be transferred to the various regimes applicable to renewable energies or any other system consid-
ered in our study.

The hydrocarbons regime (gas residues from hydrocarbon operating concessions)

The final part of this overview deals with a Tunisian scheme known as the “hydrocarbons regime”, which involves the recovery of (non saleable) gas from hydrocarbon operating concessions through its transformation into electricity and feeding into the grid. As a method of exploiting hydrocarbons, it belongs to the cogeneration family. It should be remem-
bered that a cogeneration plant is “any group of plant and equipment employed in an entity in the industrial or tertiary sector for the simultaneous generation of both thermal en-
ergy and electricity from a primary energy”, in this case the production of electricity from gas residues from hydrocarbon operating concessions. The gas to be used must come from a hydrocarbon source and must be neither (i) a commercial gas, nor (ii) able to be fed economically into the national gas transmission network (particularly due to its distance from the network).

S. 66.3 b of the current version of the Hydrocarbons Code (Code des hydrocarbures) states that “the holder of an operat-
ing concession may be authorised to use the non-commer-
cial gas from its hydrocarbon deposits in order to produce electricity and sell it exclusively to a distribution company designated by the awarding authority.

Similarly, the awarding authority may authorise a public or private body with the necessary technical and financial resources to produce electricity from non-commercial gas from hydrocarbon operating concessions in order to sell it exclusively to a distribution business designated by the


15 Published in JORT No. 12 of 10 February 2009, p. 435.

16 Published in JORT No. 79 of 2 October 2009, p. 2830.

The main conditions of this regime are set out in the table below:

<table>
<thead>
<tr>
<th>Summary of Law No. 2009-7 (sec. 14b)</th>
<th>Eligibility criteria for high and medium voltage autoconsumption projects</th>
<th>Eligibility criteria for low voltage autoconsumption projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of producer</td>
<td>Entity or group(a) of entities operating in the industrial, agricultural or tertiary sectors</td>
<td>Any producer connected to the low voltage network</td>
</tr>
<tr>
<td>Production of electricity from renewable energy sources for own consumption</td>
<td>Mandatory</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Installed capacity</td>
<td>Installed capacity must not exceed the capacity subscribed by the producer from STEG</td>
<td>Installed capacity must not exceed the capacity subscribed by the producer from STEG</td>
</tr>
<tr>
<td>Right to sell surpluses to STEG exclusively</td>
<td>Limited to 30% of annual electricity production (s. 1 of the decree)</td>
<td>Sale of the difference between the electricity supplied by STEG and that produced and supplied by the autoproducer</td>
</tr>
<tr>
<td>Sales tariff(b)</td>
<td>Set by the Minister in charge of energy (by order)</td>
<td>Set by the Minister in charge of energy (by order)</td>
</tr>
<tr>
<td>The metering cycle is specified in the specific conditions of the agreement.</td>
<td>The metering cycle is specified in the agreement (in principle, monthly)</td>
<td></td>
</tr>
<tr>
<td>Connection costs</td>
<td>Borne by the producer (including metering, control, monitoring and safety equipment) (s. 3)</td>
<td>The decree applies to “entities and groups of entities” rather than producers so leaves a certain margin of interpretation.</td>
</tr>
<tr>
<td>Cost of network upgrading (where applicable)</td>
<td>Borne by the producer</td>
<td>Unclear (the decree refers to entities and groups of entities rather than producers)</td>
</tr>
<tr>
<td>5 mill/kWh surcharge</td>
<td>Yes (to be verified)</td>
<td>Yes (to be verified)</td>
</tr>
<tr>
<td>Type of authorisation</td>
<td>Prior authorisation by decision of the Minister for Energy taken on the basis of an opinion issued by a technical consultative committee(c) (4 of the decree)</td>
<td>In principle, STEG’s consent on the agreement is sufficient for low-voltage projects.</td>
</tr>
<tr>
<td>Technical project control</td>
<td>Projects are submitted to the technical consultative committee set up under Decree No. 2005-2234 which issues an opinion on the project following analysis of the documents listed below (1).</td>
<td>Conditions set out in the supply agreement</td>
</tr>
</tbody>
</table>

(a) List of documents/information to be submitted with the application:
- a company registration certificate,
- a technical and economic feasibility study,
- details of the site and installed capacity.

(b) Conditions set out in the supply agreement:
- details of the site where the electricity will be consumed,
- the annual electricity consumption of the entity or group of entities,
- the annual electricity production of the entity or group of entities.

(c) Committee created by Decree No. 2009-2234

awarding authority. The terms and conditions under which these concessions are granted shall be determined by decree.”

Though it is not our aim here to make an exhaustive study of cogeneration methods, it is nevertheless useful to remember that this is one of the methods of autoproduction permitted under Law No. 2009-7 as examined above in relation to facilities for producing electricity from renewable energy sources. S. 9 of Law No. 2009-7 stipulates that “any entity or group of entities operating in the industrial or tertiary sector which invests in a low-energy cogeneration facility for its own consumption shall be entitled to transmit the electricity so produced via the national electricity network to its points of consumption and to sell any surpluses, subject to certain upper limits, exclusively to STEG, under the terms of a standard contract approved by the regulatory authority for the energy sector.”

Contrary to the autoproduction scheme, which is open to the production of electricity from renewable energy sources (cf. below), Implementing Decree No. 2009-2773 contains specific provisions on this “hydrocarbons regime”. Indeed, the only link with the decree lies in the fact it permits cogeneration under s. 1 which stipulates that the 30% limit of annual electricity production can be exceeded for plants producing electricity from biomass on condition that their installed capacity does not exceed 15 MW.

This regime offers no possibilities above and beyond those relating to autoproduction discussed above. It cannot currently be transferred to the renewable energy production sector. The hydrocarbons regimes are based on the autoproduction scheme explained in detail above but remains specific to the hydrocarbon sector, which is governed by its own very specific regulatory framework.

3.3.2 Adaptability of the autoproduction regime

This regime opens up the energy market to private producers and groups and applies to all renewable energy sources. It is nevertheless a very strict framework.

Indeed, this scheme is currently open only to producers whose principal activity is related to an existing industrial, agricultural or tertiary business. As such, it does not provide development opportunities for a third party developer with no link to the producer.

Where the members of a group are all producers in one of the sectors specified above there should be no particular difficulty except for the issue of the interpretation of the legal status of the group and the definition of its company objects. In fact, if the term “group” were understood, as would be logical, as meaning an “economic interest group” within the meaning of the Tunisian Company Code (Code des sociétés), its object, which would necessarily be the production of electricity from a renewable energy, would conflict with the other conditions imposed by the scheme (cf. accessory production electricity, etc.).

Things become even more complicated when the members of the group are not all the same type of entity and some of them cannot claim to be either industrial or agricultural or the occupant of tertiary premises.

Finally, there is the question of whether, when planning the construction of a renewable energy power station close to an industrial, agricultural or tertiary sector business, a developer could claim to be an entity operating in one of these three sectors. Here again such a scenario would not appear to fit within the regulatory framework since the third-party project sponsor could not also claim to be a consumer.

To work around this restriction, the project sponsor would have to be able to form a partnership with an entity whose principal activity falls in one of the sectors specified above (by taking a stake in the capital of the entity in question in order to comply with the letter of the conditions set out below) and take responsibility for the development of the renewable energy project. All that would then be needed would be to organise and secure the distribution of finance and organisational tasks between the two companies through a shareholder or partnership agreement, for example.

Another solution might be for the industrial, agricultural or tertiary sector business which wins the contract to supply electricity to avoid the developer a turnkey construction contract under which the developer would bear all the project development and facility construction costs for the business, then the facility maintenance costs, in return for a payment calculated on the basis of the level of investment made and the energy savings achieved by the business.

This type of structure raises the issue of the solvency of the members of the group and the contractual and financial guarantees required to allow the facility to operate in the long term. Clearly such an arrangement is very restrictive and closed for external developers. In any event it far exceeds the scope of a simple electricity generation project and would require a total reworking of the system to create a status of independent producer.

The feasibility of structuring this type of project in this way relies on the choice of a suitable operator and its electricity requirements (if the capacity condition is to be met) and on combining it with the creation of a renewable energy plant.

In economic terms, it is difficult to evaluate the relevance of the 30% production limit and whether it is compatible with project profitability. We believe that modelling this type of project using a case study is essential to test the parameters of the system in the current market.

Projects with completed feasibility studies (wind power sector)

The feasibility studies carried out for the Oum Krell Cement Works project(5) started in 2005 which involved the installation of a facility with a capacity of 15 MW did not establish the project’s level of financial profitability under the current regulatory constraints. Another project is currently under-way at a site in Thala. Here studies have produced a more favourable result but, as the project has yet to completed, there is currently no feedback to be analyzed.

(5) Committee created by Decree No. 2009-2234


CDM-Windworkshop/Rapport_Final_de_l_atelier.pdf
3.4 Net metering under the PROSOL ELEC programme

Provided it remains an option in regulatory terms in 2013/2014, the net metering provided for under the PROSOL ELEC programme is a further variant of the autoconsumption system which involves a financial incentive provided at the point of acquisition of a photovoltaic facility and a credit for each kWh produced over and above the producer’s electricity requirement and fed back into the network.

Historically, in Tunisia this scheme is based on the PROSOL programme and the first solar water heating systems installed by a public company called Serei Energie Nouvelle in 1985.

The programme started in 1995 with a modest level of production (300m² of photovoltaic panels annually by 1995), and has developed strongly thanks to GEF (Global Environment Fund). The scheme covers very low capacity (1 to 2 kW) photovoltaic installations. As a result, it is suited to small roofs on either domestic or business premises.

The residential sector has seen very rapid growth in the installation of photovoltaic panels (increasing from 12m²/10,000 inhabitants in 2004 to 40m²/10,000 inhabitants in 2010). Tunisia currently has 490,000m² of photovoltaic panels in 160,000 installations giving an implementation rate of 6% in the residential sector (s. 33).

This programme also involves a number of other measures associated with the development of solar water heating in the industrial and tertiary sectors:

- PROSOL Industry: under which any industrial business using solar water heating receives a subsidy of 30% of the investment costs up to TND 1500 per m² of solar panels installed.

- PROSOL Tertiary: under which hot water consumers in the tertiary sector (hotels, private health clinics, student residences, hamams and covered swimming pools, etc.) can attract a grant of 50% of the cost of technical and economic feasibility, sizing, support and monitoring studies up to TND 5,000 from Italian funds provided via the UNEP, a grant of 30% of investment costs up to TND 1500 per m² from FNME resources, an additional grant of 10% up to a total of TND 5000, a grant towards maintenance costs for the first four years after the end of the equipment warranty and an interest rate reduction of 2 points on loans made by commercial banks to hotel owners.

3.4.1 The regulatory framework governing the PROSOL ELEC programme

The programme was set up to encourage the construction of 1000 solar buildings with a total photovoltaic capacity of 1500 kW

According to the information available on STEG’s website, these financial incentives consist of:

- an FNME grant of 30% of the investment costs up to a maximum of TND 3000/kW;
- an additional grant of 10% of investment costs made by the Italian Ministry of the Environment through the Mediterranean Renewable Energy Centre;
- a contribution in kind from STEG in the form of a free uninterruptible power supply;
- a 5-year interest-free loan repaid via the STEG bill thanks to the interest rate reduction granted by the Italian Ministry of the Environment (serviced by Ettijari Bank).

All residential customers who meet the following conditions are eligible for the project. They must:

- be planning to install a photovoltaic capacity of 1 or 2 kW;
- be the owner of the property on which the solar panels are to be fitted and hold a current STEG low voltage account in their name;
- have a minimum annual electricity consumption of 2000 kWh for 1 kW installations and of 4000 kWh for 2 kW installations.

Once eligibility has been established, STEG and the producer sign an “Agreement for the Purchase by STEG of Surplus Electricity produced by Solar Photovoltaic Energy by Low Voltage Residential Consumers” (cf. the section dealing with autoconsumption above).

The surplus purchase tariff is calculated as follows for each billing period. An assessment of both production and consumption is made on site with one of the two results set out below:

- where consumption is greater than the electricity produced and fed into the network, the consumer pays for any additional kWh consumed;
- where consumption is less, any credit due for kWh fed into the network is carried forward to the next billing period.

It should be noted that the surplus electricity supplied to STEG under the agreement may not be pledged or assigned to a third party under any circumstances. Under the terms of the agreement (s. 16), only the producer itself may benefit from the energy balance which appears on its bill.

Finally, the agreement is renewed tacitly for further periods of one year, unless notice of cancellation is served by one or other party by registered letter with acknowledgment of receipt at least one month before the end of the current year (s. 18). In actual fact, this right of cancellation amounts to a unilateral right of termination and represents an obstacle to the long-term reliability of the programme.

This is a systemic failing of the purchase agreement in that it creates a lack of certainty for investors.

3.4.2 Adaptability of the PROSOL ELEC programme

This scheme covers very low capacity (1 to 2 kW) photovoltaic installations and is reserved for the residential sector. For larger capacities and where the project meets the relevant criteria applications can be made under the autoconsumption scheme detailed above.

The electricity production framework set out in the PROSOL ELEC programme is attractive for individual producers who would be unlikely to purchase a full installation given the level of financial assistance with the purchase of equipment. As a result, it is suited to small roofs on either isolated or built-up sites as long as the building in question is connected to the local grid.

In legal terms, this framework is little suited to developer-led projects due to:

- the restricted capacity available;
- the need to be the owner of the property on which the panels are to be installed.

The surplus purchase tariff is calculated as follows for each billing period. An assessment of both production and consumption is made on site with one of the two results set out below:

- where consumption is greater than the electricity produced and fed into the network, the consumer pays for any additional kWh consumed;
- where consumption is less, any credit due for kWh fed into the network is carried forward to the next billing period.

It should be noted that the surplus electricity supplied to STEG under the agreement may not be pledged or assigned to a third party under any circumstances. Under the terms of the agreement (s. 16), only the producer itself may benefit from the energy balance which appears on its bill.

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This is a systemic failing of the purchase agreement in that it creates a lack of certainty for investors.

3.5 Conclusions: schemes applicable to the production of electricity from renewable energy sources

The section below provides a summary of the main characteristics of the various schemes analysed above and of various
National objectives: this law needs to set out the general legal security: the law must ensure that applications and

3.5.1 Summary of electricity production schemes

Each of the schemes is represented below in diagram form and rated on a scale of 1 to 3 against indicators chosen on the basis of the needs of investors developing business and plants producing electricity from renewable energy sources:

A. Sustainability of the scheme (in the short, medium and long term): this indicator specifies how easy it would be to modify or even abolish the schemes in question (by decree, order, etc.)

B. Transparency of granting procedures: this indicator is designed to show whether the schemes involve any element of conflict of interest or discrimination. This indicator also takes into account (sic);

C. Production limits: this indicator is used to identify the potential production levels for each of the schemes;

D. Developer autonomy: this indicator measures the degree of autonomy enjoyed by the developer under each scheme and shows whether the developer can initiate the development of a project or is dependent on development policy and a set procedure;

A comparison of the various schemes

The IPP scheme

- A = Sustainability of the scheme: 3 (suitable for long term use)
- B = Transparency of granting procedures: 1 (lacks transparency)
- C = Production limits: 3 (no capacity limits)
- D = Developer autonomy: 1 (invitation to tender for producers)

The autoproduction scheme

- A = Sustainability of the scheme: 3 (suitable for long term use)
- B = Transparency of granting procedures: 1.5 (lacks transparency/group problem)
- C = Production limits: 2 (eligibility depends on capacity subscribed)
- D = Developer autonomy: 1 (not open to developers with no link to consumer)

The NET METERING scheme

- A = Sustainability of the scheme: 1 (system highly dependent on financial incentives with little short-and medium term visibility)
- B = Transparency of granting procedures: 2 (scheme based on specification)
- C = Production limits: 1.5 (scheme designed for very small installations which must be consumer-owned)
- D = Developer autonomy: 2 (specification known in advance, no invitation to tender for producers)

3.5.2 A critical analysis of the draft law on the “production of electricity from renewable energies”

December 2013 saw the publication of the draft law on the “production of electricity from renewable energies”, long-awaited in the sector and of vital importance to the fate of the schemes described above.

The title of the draft law is very promising, suggesting as it does a framework law dealing with general principles which might be expected to outline a number of possible development scenarios for the production of electricity from renewable energies in Tunisia and give a target figure for the development of renewable energies to be achieved within a specified period of time.

However, s. 1 sets no such target; rather it limits its scope to the “legal regime governing the production of electricity from renewable energies”.

Even more surprisingly, s. 3 of the bill delegates to the Minister for Energy responsibility for drawing up a national plan for the production of electricity from renewable energy sources. In this respect the law falls short of its role which, is to set out fundamental, guiding principles.

A further reading of the enacting clauses reveals that they comprise amendments to the existing schemes (in particular the IPP and autoproduction regimes) but fail to bring any coherence to the schemes for the production of electricity from renewable energies. As a result, we find ourselves faced with a “multi-layered regulatory framework”, which will by a sort of domino effect require amendments to other legisla-

A Technical Commission envisaged lacks the essential features of independence required for this type of body since it falls under the supervision of the Minister who appoints its members (s. 31).

An administrative authority is an administrative body which acts on behalf of the State and has real power without necessarily being answerable to the authority of the government.
■ Market openness: in line with the amendment of the Tunisian Investment Code, the law could provide the basis for setting up a scheme specific to and tailor made for the sector by relaxing the rules on company formation and capital allocation.

■ Technical clarification: the bill makes no mention of access to information on the electricity network and its condition though this is a crucial issue in the evaluation of its hosting capacity and the costs associated with any upgrading.

■ Support targets (transitional scheme): the “transitional scheme” provided for in s. 12, requires the publication of a decree setting out an annual opinion giving an annual production framework under the sole authority of the Minister of Energy until such time as the national plan is published. If the system is to be fully effective, a publication deadline for the corresponding order should be published. Without making a detailed examination of the law, given its significance and impact for the existing schemes, we consider it necessary to focus on the sections dealing specifically with (i) autoconsumption, (ii) invitations to tender (IPP) and (iii) the Technical Commission.

Autoconsumption: ss. 9 to 11 on the “production of electricity for autoconsumption” These provisions are designed to amend the current autoconsumption scheme (2009 law). For medium and high voltage producers, the scheme is now open to local authorities and public bodies. However, there are still a number of questions on the following issues:

1° Through the new framework appears to open up autoconsumption with no production restrictions (currently limited to 30%), s. 9 still contains a reference to the “sale of surpluses except to STEG subject to certain upper limits”. Why has this provision been maintained?

2° If a third-party developer working with the industrial, agricultural or tertiary sector entity it is not eligible

3° The option of operating a site “in association” is not clearer than under the current regime in which there is a problem of interpretation in relation to groups of operators.

■ Invitations to tender (IPP): ss. 12 to 23 on the production of electricity from renewable energies to meet the needs of local consumption

The scheme described here is the same as the current IPP scheme set up in 1996 which has not been particularly successful.

The scheme proposed fails to clarify the invitation to tender process mentioned. Who is responsible for launching invitations to tender? How are tender procedures to be coordinated?

The invitation to tender procedure must be clear in terms of (i) the invitation to tender period, (ii) the capacity required, (iii) the response period and (iv) transparency and compliance with the rules of competition: monitoring by an independent body (cf. the section dealing with the regulator).

Specimen quotes from a French invitation to tender specification for a photovoltaic installation (100 to 250 kW installations)

“France’s renewable energy promotion action plan aims to increase the share of renewable energies in overall energy consumption to at least 23% by 2020 thanks to an increase of 10 MWe in the annual production of electricity from renewable energy sources.

The measures introduced to help achieve these goals include setting up a system for promoting the development of photovoltaic electricity. It is based on a system of purchase tariffs adjustable on a quarterly basis for projects under 100 kW and a system of invitations to tender for projects over 100 kW.

Thus invitation to tender relates to the construction and operation by 2016 of building-mounted photovoltaic installations with peak capacities that vary between 100 and 250 kW providing a total maximum capacity of 120 MWe. This overall capacity is split over three successive tender periods as detailed section 2.1 below.

Throughout this document the term Minister for Energy refers to the Minister of Ecology, Sustainable Development and Energy.

Only projects with a peak capacity of between 100 and 250 kW are admissible. Any person operating or wishing to construct and operate a production unit may take part in the invitation to tender subject to the provisions of s. L.2224-32 and L.2224-33 of the French General Local Authorities’ Code (Code général des collectivités territoriales).

The final tender selected, or tenders where two candidates are rated equally, may represent more than the capacity required for each period. Conversely, the tenders by the government may represent less than the total capacity sought.

Pursuant to Decree No. 2002-1434 of 4th December 2002 (Décret n° 2002-1434 du 4 décembre 2002), the Energy Regulatory Commission (Commission de régulation de l’énergie, CRE) is responsible for implementing the tender process. Based on the conditions set out by the Minister for Energy, it will propose a draft specification which the Minister may modify before approval. The CRE will then respond to any questions posed by bidders, receive, process and send the tenders, then give its opinion (with reasons, published in the Official Journal) on the tender which Minister for Energy intends to select.

It should be remembered that the selection of a bidder in this tender process does not in any way prejudice the completion of any administrative formalities it is required to perform, in particular, those required to obtain any authorizations required in relation, in particular, to the compliance of the installations and environmental protection.”

The Technical Commission (embryonic “regulator”): s. 31 on the Technical Commission

Since it reports to the Ministry, this technical commission does not constitute an independent authority.

Furthermore, it has no responsibility for the settlement of disputes between producers and electricity distribution companies or any other party.

Example: The Energy Regulation Commission (France)

The CRE is an independent administrative authority which was created when the French energy markets were opened up to competition. Under the French Law of 10 February 2000 on the Modernisation and Development of the Public Electricity Service (Loi du 10 février 2000 relative à la modernisation et au développement du service public de l’électricité), which now forms part of the Energy Code (Code de l’énergie), it is tasked with regulating these markets. S. L. 133-6 of the Energy Code requires members and officers of the CRE to carry out their duties in a completely independent and impartial manner and prohibits them from following any instructions given by the government or any third party. They are also subject to a duty of professional secrecy stipulated in the same section.

According to the provisions of s. L. 132-1 of the Energy Code, the CRE comprises two independent bodies (a college comprising five members and a 4-member dispute resolution and sanctions committee), both of which reach decisions and form opinions using transparent procedures (working groups, public consultations, hearings).

The funding required to finance the CRE is proposed by the Commission to the Minister for Energy and the Minister of Finance for inclusion in the relevant budget. The CRE is in turn regulated by the Cour des comptes, the French Auditor General’s Department.
4. AVENUES FOR DEVELOPING PRIVATE INVESTMENT IN RENEWABLE ENERGY PROJECTS

When considering a potential investment, an investor must assess the specificity and stability of the regulatory framework in which it will be working. Similarly, the stability and reliability of the regulatory framework put in place by a national government help it to build credibility and back up the commitments it makes in negotiating national and international conventions such as, the ratification of the UNFCCC, the Kyoto Protocol, the OECD Declaration on Green Growth in March 2012, etc.

Tunisia has yet to develop a green finance strategy or a specific approach to attracting “green” foreign investors and current reforms to the Foreign Investment Code (Code des investissements étrangers) are doing nothing to reverse this trend. Aware of the significance of this sector, however, the Tunisian government has included a section on the development of renewable energies in its Strategic Economic and Social Development Plan for 2010/2016. Under the Tunisian Solar Plan (TSP) for the same period 40 energy sector projects are to be implemented. These include 29 projects led by foreign businesses representing a total investment of EUR 1.39 billion which will increase the share of renewable energy in the electricity production mix from 1% today to 16% in 2016 and deliver energy savings of 22% and a reduction in CO2 emissions of 1.3 million tonnes per year. It remains to be seen, however, how these projects will actually be developed within the existing regulatory framework.

Below we will consider the principal obstacles facing foreign companies seeking to develop a renewable energy plant construction project.

In addition to the technical feasibility of the project (network capacity, site accessibility, sunshine levels in the case of photovoltaic projects, etc.), companies leading this type of project need to fully understand the property issues at stake and have sufficient regulatory and contractual visibility to create a business model and a return on investment (ROI) compatible with the sums invested and revenues expected.

Against this backdrop we shall consider two classic forms of finance, leasing and ESCOs, in order to ascertain the extent to which they can be transferred to the photovoltaic energy production sector in Tunisia for private foreign investors.

These two mechanisms must clearly take into account the current economic situation in Tunisia. Therefore, before examining them in detail, we shall first review the principal characteristics of the regime applicable to private foreign investment in Tunisia.

4.1 The principal characteristics of the regime applicable to private foreign investment in Tunisia

According to the OECD\textsuperscript{37}, despite the efforts made since the 1970s (when the first Investment Code was promulgated), Tunisia received a high score in the Regulatory Restrictiveness Index measuring Foreign Direct Investments (FDI) in 2012. The Investment Incentives Code (Code d’incitations aux investissements) currently in force was promulgated following Law No. 93-120 of 27 December 1993 (Loi n° 93-120 du 27 décembre 1993).

The Investment Incentives Code sets out the legal and institutional framework governing foreign investments\textsuperscript{38}. It is intended to guarantee freedom to invest and the non-discriminatory processing of development projects whilst at the same time imposing certain restrictions.

Aware for the need to further open up the private sector to foreign companies, Tunisia wishes to improve its strategic, regulatory and institutional framework. It is with this aim in mind that a reform of the Investment Incentives Code, which dates back to 1993 and is judged overly restrictive, was launched at the beginning of 2013. Though as it stands, in its current draft form and prior to negotiations with the relevant market players and institutional partners, the law does provide some clarification on foreign business access to the private sector, it does not offer any substantial change from the status quo. Indeed, on certain issues, such as the development of renewable energies, the draft code is even less specific than the previous version (cf. below).

\textsuperscript{37} OECD examinations of investment policies in Tunisia (2013).
\textsuperscript{38} Thanks to this statute Tunisia ranked 46th in the world in the 2011–2012 World Economic Forum’s Global Competitiveness Report.
4.1.1. Restrictions on freedom of activity

In addition to the electricity generation sector, the production of electricity from renewable energy sources also involves a number of transactions, which fall within the scope of the traditional property sector (services, design and diagnostics, the supply of materials and equipment, works and works contracts, etc.). It is therefore necessary to ascertain whether these activities are subject to any specific administrative requirements in Tunisia or whether the market is completely open to foreign businesses.

The Investment Incentives Code sets out the regulatory framework governing investment projects and subjects potential investments by foreign companies to several levels of control depending on the sector of activity involved (ranging from a declaratory regime to an authorisation procedure).

Ss. 1 and 2 of the Code list the activities subject to these controls.

The production of electricity from renewable energy sources does not appear to be covered expressly by the Investment Incentives Code. S. 2 of the Code states that activities in the "environmental protection" sector are subject to declaration but not all of them fall within its scope of application. Indeed, s. 5 of Decree No. 94-492 of 28 February 1994 (Décret n° 94-492 du 28 février 1994) implementing ss. 1 and 2 of the Investment Incentives Code specifies that these activities cover de-pollution and environmental control services, refuse collection, transportation, processing, sorting, recycling and recovery services, waste water treatment and specialist environmental consultants and laboratories.

Given the diversity of the list of activities subject to control, however, prudence is advocated both in selecting the objects of the company to be formed and in monitoring any updates to the list of activities subject to control, which may be announced by the government.

The Investment Code contains no significant advance on this issue. For example, the draft lists neither the energy sector, nor the sustainable development sector as sectors to be promoted. At best, a foreign investor might claim that an operation in Tunisia is promoting "job creation and the development of human capital" (s. 1) in order to claim eligibility for the tax incentive scheme provided for in the Code.

4.1.2 Restrictions on the regime governing the establishment of foreign companies

S. 3 of the Investment Incentives Code states that "resident and non-resident foreigners are free to invest in projects carried out pursuant to this Code. However, foreign involvement in certain service activities other than those which are wholly export-related, a list of which is fixed by decree, remains subject to the approval of the Higher Investment Commission (Commissariat Supérieur d'Investissement) as stipulated in s. 52 of this Code where such involvement exceeds 50% of the capital of the business".

There is another scheme more favourable to export companies whose production is intended entirely for export and those supplying services abroad or in Tunisia to be used abroad (s. 10 of the Investment Incentives Code).

Such companies are regarded as non-resident when their capital is held by non-Tunisian residents or foreigners by dint of the import of convertible foreign currencies equal to at least 66% of the capital. As it stands, this regime is not suited to local electricity production from renewable energy sources (and should be reserved for electricity export projects).

Though it proposes the general principle that "investment is free in Tunisia whatever the nationality and residence of the investor" (s. 4), the draft Investment Code does not resolve this difficulty.

In fact, the scope of this statement of principle is significantly reduced by the extremely broad and vague wording of s. 5 and 6. S. 5 maintains the need for prior authorisation for "investments in activities referred to in special legislation and regulations". Furthermore, s. 6 subjects investments under the Investment Incentives Code to "investments made in certain service activities … where the foreign holding in the capital exceeds 50% and where the amount of these investments is less than a minimum level. A list of these activities, the minimum level and the conditions of authorisation shall be established by decree".

If a list of the activities covered by these schemes is not drawn up as soon as the Code is promulgated, the Code will prove highly ineffective.

4.1.3 Financial anti-pollution and environmental protection incentives

Title VI of the Investment Incentives Code deals with "anti-pollution and environmental protection measures".

S. 37 describes a tax scheme applicable to energy saving equipment and to research into and the production and sale of renewable energies. It has its origins in the now outdated Law No. 85-28 of 25 April 1985 encouraging Research into and the Production and Sale of Renewable Energies (Loi n° 85-48 du 25 avril 1985 portant encouragement de la recherche de la production et de la commercialisation des énergies renouvelables).39

This scheme comprises:

- an exemption from customs duties and taxes with equivalent effect and the suspension of VAT and "consumption tax" (droit de consommation) on imported equipment with no locally manufactured equivalent (subject to prior authorisation by the ANPE);
- a specific grant (made by the De-Pollution Fund (Fonds de Déléturgie) created in 1992).

The draft Investment Code is particularly disappointing in this respect. This scheme has simply been abolished and there is not a single reference to the term "energy". Refuse recycling is relegated to the end of s. 38.

If these elements of the draft are not modified, it will mark a regulatory "regression" highly unfavourable to foreign investment.

4.1.4 Property law as an obstacle to foreign investment policy

The issue of property rights represents a weak point in the Tunisian regulatory framework, particularly as regards the restrictions imposed on foreign investors acquiring property and the slow speed of land registration procedures. Though it does open the door some way to an improvement in the situation, the draft Investment Code does not provide a complete response to the restrictions placed on investors in this area.

The right to own property is, of course, guaranteed in the Tunisian Constitution40 and must be exercised within the limits set by law. The registration of title to land was codified in 1885 and also from the setting up of land registries. These latter are responsible, in particular, for issuing the certificates of ownership (certificats de possession) providing property details, which it is vital to obtain before commissioning any on-site study41. These certificates identify any objections or claims relating to a piece of land (s. 373 of the Tunisian Property Code).

The so-called "land law" (Décret of 1 July 1885, Décret du 1er juillet 1885) introduced a registration system and gave individuals the choice of staying with the old regime or applying for registration under the new law.

Mandatory land registration, as provided for in s. 4 of the Law No. 65-5 of 12 February 1965 promulgating the Property Code and referring to Decree-Law No. 64-3 of 20 February 1964 (Loi n° 65-5 du 12 février 1965 portant promulgation du Code des droits réels et renouvelant au droit-léz n°64-3 du 20 février 1964), deals with the land survey, which follows the same procedure as optional land registration.

Once a property has been registered, it falls under the provisos of Book 2 of the Tunisian Property Code, Thus, for example, once registered a right is not subject to limitation and there is no claim for ownership on the basis of possession no matter how long that possession (s. 307 Property Code).

Prior authorisation

The purchase or leasing of property and premises (with the exception of agricultural land as detailed below) by foreign private individuals or legal entities is subject to prior approval by the regional governor, except in industrial and tourist zones (pursuant to Law No. 2005-40 of 11 May 2005, Loi n° 2005-40 du 11 mai 2005).

In parallel with this provision, it should be noted that s. 52bis of the Investment Incentives Code describes a system under which land required for development projects can be made available for a peppercorn amount by decree on the basis of an opinion issued of the Higher Investment Commission. Given the complexity of the application procedure, this system is probably only suitable for large-scale renewable energy production projects.
Regrettably, there is no mention of this system in the draft Investment Code.

Agricultural land

Under the current Investment Incentives Code (s. 3) it is impossible for foreigners to purchase agricultural land. Foreign companies can acquire farm holdings only by means of a long lease granted to a farming operation in which the foreign company owns less than 66%.

In such cases, the term of the lease is up to 40 years for state-owned land and unlimited for private land (with a minimum term of three years).

Given that a project to construct a ground-based photovoltaic power station on agricultural land may present a conflict of use, this restriction on the acquisition of land by foreign companies can constitute an obstacle to project development.

S. 8 of the draft Investment Code stipulates that “foreigners may invest in the agricultural sector but may not acquire ownership of agricultural land”. This section therefore appears to liberalise the conditions on leasing agricultural land and put an end to the upper ownership limit. Clarification on this point would nevertheless be welcome.

Finally, s. 9 authorises the acquisition of a holding of up to 30% of the shares of a Tunisian company in order to acquire agricultural land for an agricultural project. The construction of a plant for the production of electricity from a renewable energy source is not an agricultural project in the strict sense of the term, though, as this type of project is often associated with the development of an agricultural project, the scheme is encouraging. However, a more open approach to renewable energy projects would clearly be more satisfactory.

**Prohibition of emphyteutic leases (long leases confering a right in rem)**

It should also be noted that s. 191 of the Tunisian Property Code states that “the following are prohibited with effect from the date of entry into force of this Code”46: the granting of emphyteutic leases, the renewal of current emphyteutic leases and the granting of surface rights, enzels (see below) and kirdans (perpetual leases)47. An “enfui” right is defined in s. 954 of the Tunisian Code of Obligations and Contracts (Code des obligations et des contrats) as “a contract by which the owner of a property (...) grants in perpetuity but subject to a repurchase option (...) ownership in and enjoyment of a property in consideration of a set and invariable sum payable annually or monthly that the other party undertakes to pay to him”.

This particular provision must be taken into account when making the property arrangements for a project as the only lease available to a developer is a long lease.

In financial terms, this means that under the current prohibition developers cannot take advantage of the usual guarantees arising out of emphyteutic leases. As a result, they cannot take out a mortgage or place a charge on a property, as is often demanded by financing bodies in addition to or in lieu of a financial guarantee.

Card and co-ownership

It should also be noted in passing that the other regimes applicable to property provided for in the Tunisian Property Code, such as indivision (s. 56 et seq.), co-ownership (s. 85 et seq.) and easements (s. 165 et seq.), are very similar to those found in French law.

They can be useful in cases where solar panels are to be installed on the roof of a pre-existing building. For example, the creation of a co-ownership “plot” corresponding to the photovoltaic unit to be installed on the roof.

4.1.5 Restrictions on the effectiveness of guarantees and sureties

In the current state of the financial market in Tunisia, where finance is tight, guarantees are very important. Observers have noted that it may be necessary to provide guarantees of up to 150 or 200% of a loan amount. This is clearly having a restrictive effect on access to credit.

These guarantees traditionally take the form of mortgages on buildings or installations with surface rights (or on a jointly owned property) and security or pledges on equipment in the case of the installations themselves. They may also take the form of specific contractual agreements such as bank and other guarantees and on-demand guarantees.

The Tunisian Property Code also permits the granting of mortgages on land owned by developers (s. 270 et seq. Property Code).

As far as the installation of renewable energy production equipment on buildings or land not owned but held on a long lease by a developer are concerned, the guarantees provided in setting up the project may be used as pledges. These are governed by the Tunisian Property Code (s. 201 et seq.) under a regime fairly similar to that existing in France. Pursuant to this section “a pledge is a contract by virtue of which a debtor or a third party acting in his interests delivers an item of movable or immovable property or an intangible right as security for an obligation and grants the creditor the right to be paid out of this property in priority over all other creditors should the debtor fail to discharge the debt”.

Such a pledge may be provided as security for a loan or the opening of a current account or for a future or contingent obligation, if the amount of the debt secured is quantified in the deed of pledge (s. 206). It must be drawn up in writing if it is to be binding on third parties (s. 214). The provisions governing pledges are largely satisfactory and pose no particular problems of interpretation.

In any event, and whatever the arrangement chosen for a project installing renewable energy generation plant, it is vital to request or in case of doubt to have the property boundaries marked out by a surveyor (s. 322 Property Code).

In conclusion, and notwithstanding the prohibition on emphyteutic leases, the provisions relating to guarantees and surety are generally satisfactory for the development of renewable energy projects.

4.1.6 Administrative authorisations linked to planning law

4.1.6.1 As most countries, in Tunisia there is no “perpetual solar right” (i.e. no general principle limiting future constructions likely to reduce the solar capture potential of a site).

It should also be remembered that in order to protect a project in terms of planning law and to avoid the risk of an action to set aside or an action for demolition by a third party whose interests have been damaged, it is wise to comply with the rules on planning permission governed by the provisions of ss. 68 et seq. of the Tunisian Regional Development and Planning Code (Code de l’aménagement du territoire et de l’urbanisme, CATU).

Planning permission is required before any building, resto

Planning permission is issued in the form of an order (arrêté) based on an opinion issued by a technical commission.

A technical commission is formed in every governorate or municipality by order of the Minister for Planning (Minis

The representative of the Minister for Planning has a right of veto over applications for planning permission. The processing period is 45 days from submission of the application or 60 days if a development plan is being drawn up, or 90 days, if the construction is located in certain zones specified in s. 69 CATU.

A list of the documents to be submitted with the application is specified in the order of 17 April 2007 (see above) setting our the Documents and Procedures applicable to Planning Permission, Validity and Extension Periods and Renewal Conditions, as published in the JORT, 24 avril 2007, p.1333).

In terms of planning law there would appear to be no partic

In Tunisia, statutes occasionally make direct or indirect reference to custom (or usage). In both cases the legislator would seem to be encouraging the courts to consider custom in the interpretation of contractual relationships (in so far as it is not contrary to the law). Examples of this phenomenon include s. 243 of the Code of Obligations and Contracts which provides that “all undertakings must be performed in

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46 Effective following publication in JORT No. 10, 19/23 February 1965, p. 176.
47 S. 5 of Law No. 65-5 of 12 February 1965 promoting the Property Code (Loi n° 65-5 du 12 février 1965 portant promulgation du code des droits réels).
good faith and are binding not only in respect of that which is expressly stipulated but also in respect of any consequenc- es which the law, usage or equity may give to the obligation by virtue of its nature.  

This having been said, there is no discrimination as regards foreign businesses who have recourse to legal action to settle a dispute arising in relation to the performance of a contract (except supply and sale agreements in which case appeal lies to the higher administrative authority, i.e. the relevant minister). Contract performance in case of dispute has been assessed by the World Bank which rates Tunisia in 76th place 1 on the basis of the results obtained. It is therefore wise wherever possible to include an arbitration clause in all contracts and to use arbitration where possible.

On this point, s. 67 of the Investment Incentives Code provides that “the Tunisian courts have jurisdiction over all disputes between investors and the Tunisian State except where an arbitration or other clause permits one or the parties to go to arbitration (…)”.  

The draft Investment Incentives Code devotes more attention than its predecessor to the administrative procedures it puts in place and to the various dispute resolution procedures. For ex- ample, it provides an institutional framework by creating a na- tional investment council chaired by the head of the Tunisian government (s. 55) and a national investment body responsi- ble for implementing the government’s investment policy (s. 56 and 57) - effectively a sort of one-stop-shop for investors. This is a much needed improvement, although in practical terms it re- mains to be seen whether the funding required to implement these measures will be forthcoming.

In terms of procedures, the draft provides for systematic recourse to conciliation, failing which s. 64 stipulates that the conciliation rules of the United Nations Commission on International Trade Law shall apply. In this respect the draft Investment Incentives Code provides welcome clarification.

4.2 The regulatory framework governing the leasing of movable assets

Leasing is a classic technique used for financing real and movable property transactions. It consists of an agreement to lease an asset (the “asset”) for a fixed and irrevocable period signed between a business (the “lessor”) and a bank or other specialist lender (the “lessee”) accompanied by an option to purchase at the end of the lease.

The advantage of leasing for the lessor lies essentially in the right of ownership its holds in the asset until the purchase option is exercised. The advantages for a business are mul- tiple. Without wishing to provide an exhaustive list, they include the ability to optimise financing by the transfer of long-term risk to a third party and certain corporation tax advantages.  

Leasing is a mechanism used frequently in France in sus- tainable development projects and project financing. It is designed to:

- finance a range of measures, which fall within the pa- rameters of the development of photovoltaic energy fol- lowing an assessment of the financial cost of the measure and selection of the type the choice of financial support (investment subsidy) to mitigate the low investment profitability and risks;

- provide collateral for transactions through effective guar- antees and sureties (security deposits, financial guaran- tees, mortgages, etc.).

In France, a specific funding scheme has been created using tailor-made companies (called “energy savings finance com- panies” or sociétés de financement des économies d’énergie, SOFERGIEs). SOFERGIEs are financial companies which specialise in the provision of funding through real and move- able asset leasing, rental and credit solutions for investments designed in particular to save energy or protect the environ- ment.

The principle behind the mechanisms offered by these SOFERGIE companies is the funding of investments designed to produce renewable energies through real and move- able asset leasing and rental solutions. The lessor purchases the equipment in place of the business under a set of contractually agreed provisions, then leases it to the business for the term of the leasing agreement. At the end of the agreement, the business may buy the asset at its residual value, return it to the lessor or continue to lease it.

In France, the SOFERGIE scheme is used to optimise finance conditions and obtain tax advantages specific to leasing. The features of the scheme are as follows:

- financing of up to 100% of the investment (including all consultancy costs and fees);

- integration of any subsidies received into the finance package;

- by deciding to exercise its purchase option at the end of the agreement the lessor can become the owner of the investment it has selected, made and operated;

- where the asset is financed through leasing and if the property element of the investment is less than 20% of the total investment amount, this property element can be depreciated over the same period as the movable asset;

- the lessee leases the equipment: payments made under the leasing agreement are counted as operating expenses and can be included in the profit and loss account while the asset itself does not appear on the balance sheet.

The advantage of using this scheme lies principally in the flexibility gained by spreading the investment finance over time. The repayment period can be adjusted in line with the intrinsic profitability of the transaction, the agreements related to its performance (including the electricity supply contract) and any legislative and regulatory constraints.

The question is to what extent this scheme can be used within a Tunisian framework for financing the construction of electricity generating plants, particularly those using photovoltaic energy.

4.2.1 The characteristics of the leasing regime in Tunisia

Leasing first appeared in Tunisia in 1984 and continued to develop until 1994 without any specific regulatory frame- work under the provisions of ordinary law. The current regime, its key points being very similar to those governing leasing arrangements in France, was created by Law No. 94- 89 of 26 July 1994 (Loi n° 94-89 du 26 juillet 1994).

S. 1 of Law No. 94-89 describes leasing as “a transaction in- volving the leasing of plant, equipment or property purchased or made in order to be leased by the lessor, who retains own- ership thereof, and intended to be used in professional, com- mercial, industrial, agricultural, fishing or service activities”.  

This statute also stipulates that during the term of the lease and by agreement with the lessor the lessee may acquire all or part of said plant, equipment or property. The leasing agree- ment must be in writing and contain the following provisions:

- the term of the agreement;

- a fixed payment throughout the term of the agreement (generally monthly or quarterly);

- the lessee bears all the risks, costs and charges arising from its enjoyment of the leased asset;

- the conditions of the customer’s purchase option.

As in France, leasing is regarded as a credit transaction and may only be offered by accredited banking institutions regu- lated by the Central Bank of Tunisia.

At the lessor’s request leasing transactions relating to plant and equipment must be recorded in a register kept at the re- gistry of the court with geographical jurisdiction for the lessee’s main place of business (place of company registra- tion). This entry includes all the information needed to identify the parties and the leased asset.

In terms of specific tax schemes applicable to electricity generating plant, we have identified just one piece of leg- islation, Decree No. 2008-492 (Décret n° 2008-492 du 25 février 2008), which sets the depreciation rate for “electricity and gas plant – a) electricity production, transmission and distribution plant” at 5%.

It should also be noted that the 2012 Tunisian budget law promulgated on 31st December 2011 extended the tax regime applicable to leasing transactions to “ijara” financing transactions, an Islamic finance mechanism comprising a rental agreement with purchase option very similar to leasing. The regime was extended to cover such transactions to meet the needs of investors unwilling to use conventional finance mechanisms. The details of this scheme are given in Appendix 9 below.

Fig. How “ijara” works

- Seller
- Islamic bank
- Customer
- Payment of purchase price


To use this mechanism for a roof-mounted photovoltaic electricity generating plant construction project (cf. above), it is necessary to check and set up a certain number of (i) property and (ii) planning rules applicable in Tunisia but there is no legal obstacle to foreign investment companies using this leasing mechanism under the current regulatory framework.

4.3 Energy Service Companies (ESCO)

4.3.1 Using ESCOs in Tunisia

As early as the 1980s Tunisia adopted a proactive policy supporting energy efficiency research programmes. The Tunisian National Energy Management Agency, or ANME, created in 1986, was tasked with implementing the government’s policy in this area of energy management.

In 2005, Tunisia launched an ambitious programme comprising various initiatives including the promotion of mandatory periodic energy audits, a consultation process for energy consumer projects, thermal regulations for buildings, energy substitution and the use of Energy Service Companies (ESCOs). These ambitious plans were completely in line with European energy policy and provided a regulatory framework for the implementation of Energy Performance Contracting (EPC).

Directive 2006/32/EC of 5th April 2006 on Energy End-Use Efficiency and Energy Services defines EPC as “a contractual arrangement between the beneficiary and the provider (normally an ESCO) of an energy efficiency improvement measure, where investments in that measure are paid for in relation to a contractually agreed level of energy efficiency improvement”.

Art. 3 goes on to describe EPC as one of the “financial instruments for energy savings” alongside contracts that are made available to the market place by public or private bodies in order to cover partly or totally the initial project cost for implementing energy efficiency improvement measures. To use this mechanism for a roof-mounted photovoltaic electricity generating plant construction project (cf. above), it is necessary to check and set up a certain number of (i) property and (ii) planning rules applicable in Tunisia but there is no legal obstacle to foreign investment companies using this leasing mechanism under the current regulatory framework.

4.3.2 The principal characteristics of ESCOs

In general terms, an ESCO operates as follows:

Stage 1: Performance of a detailed legal and technical feasibility study

Stage 2: Design of the studies required to implement solutions to provide and guarantee energy savings

Stage 3: Monitoring and maintenance of the plant installed throughout the term of the contract entered into with the building end-user (or owner).

The energy cost savings achieved thanks to the signature of the agreement between the end user and the ESCO are used to repay the initial investment cost over a period of 5 to 20 years.

The purpose of the ESCO is therefore to assume the “performance risk” involved in the project defined in the contract. As a result the end user and the ESCO must define the following in their agreement:

- the sums/funds required to finance the energy savings project;
- the planned energy savings threshold;
- a profit-sharing formula, which may vary according to the amount of investment and the term of the contract.

It is therefore clear that the level of savings guaranteed by an ESCO depends on (i) the level of initial investment, (ii) the reliability of subsequent energy efficiency measures and controls, and (iii) the term of the agreement entered into between the ESCO and the end user. Taken together, these three criteria may be seen as representing a high-risk model for contractors, particularly since any payment guarantees they are able to obtain from their users will be of little use in the event of insolvency.

End user, by contrast, will have to resolve the issues of (i) the sovereignty of the ESCO, which should be able to provide a financial guarantee against any shortfall and (ii) its ability to monitor and intervene in the project (including corrective measures).

In France, the use of ESCOs was regulated under the Grenelle Environment Round Table (Grenelle Environnement), the current definition of the term being “any company, whatever its principal sector of activity, acting as a contractor to a constructing authority which carries out works or supplies goods or services designed to reduce energy consumption under the terms of an energy performance contract”.

The core elements of energy performance contracting

Under these provisions, an energy performance contract must contain the four core elements set out below as defined in the “Energy Performance Contract” checklist published by the French Ministry of Sustainable Development (Ministère du Développement Durable):

1. Purpose

The purpose of all energy performance contracts is, firstly, to improve the energy performance of a building, i.e. to reduce its energy consumption and, secondly, to improve service levels based on a contractually agreed reference position describing all energy performance characteristics of the building on the effective date of the contract. The determining purpose driving two parties to enter into an energy performance contract must be the achievement of energy savings, not the performance of works or the provision of goods or services, even if they are associated with contractually agreed energy performance levels.

2. Investment

All energy performance contracts involve an investment, whether tangible or intangible, in works, goods or services designed to improve energy performance. This investment is designed to modify the energy characteristics of the building in order to improve energy performance. The cost of this investment is borne by the contracting authority where the energy performance contract falls within the scope of the Public Procurement Code (Code des marchés publics). Where the energy performance contract falls under the scope of Ordinance No. 2005-649 of 6 June 2005 on Contracts awarded by certain Public or Private Entities not subject to the Public Procurement Code or Ordinance No. 2004-559 of 17 June 2004 on Partnership Agreements (Ordinance no. 2005-649 du 6 juin 2005 relative aux marchés passés par certaines personnes publiques ou privées non soumises au code des marchés publics ou de l’ordonnance n° 2004-559 du 17 juin 2004 sur les contrats de partenariat), on the other hand, the cost of the investment may be borne either by the contracting authority or by the ESCO.

3. Energy performance guarantee

The primary obligation of the contractor is to “guarantee” an improvement in energy performance by means of the investments made while providing the contractually agreed level of service throughout the term of the contract. The energy performance guarantee requires the contractor to compensate the contracting authority for any prejudice suffered as a result of a failure to achieve the energy performance improvement targets. The contractor is required to pay compensation corresponding to the economic equivalent of all or part of the difference between the contractually guaranteed volume of energy and the energy actually consumed and measured. In certain cases this compensation may take the form of additional works. If energy performance is improved beyond the contractually agreed target, the contractor receives a share of the additional energy savings made.

4. Energy performance measurement

The energy performance improvement target guaranteed must be measured and checked during the term of the contract. Accordingly, the energy performance guarantee must relate to measurable data which must be specified in a contractually agreed and objective protocol signed by both parties.

There are three types of contract depending on the objectives of the parties involved:

“Goods and services” energy performance contracts:
- Type of services: these contracts provide for the supply of plant (adding to, modifying or replacing existing plant) by the contractor, which is also responsible for its operation and maintenance throughout the term of the contract;
- Preferred equipment type: boilers, heat pumps;
- Level of investment – self-financing capacity: investment limited and can often be self-financed through cost savings;

“Works and services” energy performance contracts:
- Type of services: these contracts provide for the design and performance of works on existing buildings;
- Preferred equipment type: particularly waterproofing;
- Level of investment – self-financing capacity: high level of investment, which is difficult to self-finance through cost savings alone, it may be possible to optimise this cost through a finance arrangement such as a lease or long-term agreement with a photovoltaic developer;

“Full services” energy performance contracts:
- Type of services: these contracts provide for both the design and building of plant and for works on existing buildings;
- Preferred equipment type: works and plant;
- Level of investment – self-financing capacity: investment limited and can often be self-financed by cost savings.
4.3.3 The regulatory framework applicable to ESCOs in Tunisia

Under Tunisian legislation, ESCOs are dealt with in Law No. 2004-72 of 2nd August 2004 on Energy Management (Loi n° 2004-72 du 2 août 2004 relative à la maîtrise de l’énergie), which stipulates that “energy management measures shall cover all programmes and projects designed to improve levels of energy efficiency and to diversify energy sources within the framework of the State’s energy policy, notably through:

- the periodic mandatory energy audit;
- prior consultation on energy consumer projects;
- the use of energy service companies;
- (...) the promotion of renewable energies (...)” (s. 3 Law No. 2004-72).

The entities to which this regime applies, and are therefore required to carry out mandatory periodic energy audits, are those listed in Decree No. 2004-2144 of 2 September 2004 (Décret n° 2004-2144 du 2 septembre 2004), whose total energy consumption exceeds the capacity thresholds set out below:

- industrial sector entities whose consumption is greater than or equal to 1,000 toe;
- transport, tertiary and residential sector entities whose total energy consumption is greater than or equal to 500 toe.

In addition, any entity not subject to the audit requirement which carries out extension works resulting in an increase in its total energy consumption beyond the thresholds specified must notify the ANME within three months of completion of the extension works and carry out an energy audit or risk a fine of TND 5,000 to 10,000. Continuing in the same vein, Decree No. 2005-2234 of 22 August 2005 setting the Rate and Amounts of Grants made for Measures falling under the Energy Management Regime (Décret n° 2005-2234 du 22 août 2005 fixant les taux et montant des primes relatives aux actions concernées par le régime pour la maîtrise de l’énergie) provides for a grant of 50% of energy costs up to TND 20,00054 and a grant of 20% of investment cost for energy management projects run under performance contracts up to the following amounts:

<table>
<thead>
<tr>
<th>(Max) grant</th>
<th>Entities whose total average annual energy consumption does not exceed the values set out below (in toe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TND 100,000</td>
<td>4,000</td>
</tr>
<tr>
<td>TND 200,000</td>
<td>4,000 to 7,000</td>
</tr>
<tr>
<td>TND 250,000</td>
<td>More than 7,000</td>
</tr>
</tbody>
</table>

Under this law, energy consumers can enter into contracts with energy service companies in order to make energy consumption savings (s. 6 Law No. 2004-72).

53 Published in the JORT No., 14 September 2004.
54 This decree also provides for a grant of 50% of the total cost of a demonstration project approved by a performance contract with a minimum value of TND 100,000.
Tunisia is currently undergoing a period of political, economic and energy transition which is crucial for its future. The challenges are great. The National Conference on Energy Transition held in 2015 highlighted the importance of the energy efficiency promotion measures supported by the ANME as “having generated tangible energy savings.” They also underlined the urgent need to accelerate the transition process and to limit and contain Tunisia’s energy deficit.

However, this acceleration is dependent on funds, which are difficult to mobilise.

Difficult first and foremost because Tunisia needs significant finance to set up a new regulatory and institutional framework and because it is, like many countries, a victim of the current economic crisis, which is limiting access to credit.

Difficult, too, because against this backdrop the financial system and banks in particular are seeking to reduce their leverage and long-term assets, particularly in light of the targets set by the Basel III Agreement adopted in 2010, which came into force in 2013.

This situation has a direct impact on the financing of renewable energy development projects, 70 to 80% of which involve medium- or long-term borrowing (on average 15 to 20 years).

It also means that any assessment of possible avenues of developing the foreign private investment in the renewable energies sector must necessarily involve a systematic search for the least expensive option.

These avenues of strategic development can be divided into two main categories, which are nevertheless closely interlinked. Firstly, those dependent on the institutional and regulatory framework in Tunisia and, secondly, those which are more or less directly dependent on a system of financial aid.

In considering avenues of development dependent on Tunisia’s institutional and regulatory framework, it is important to consider two principles:

- Legislative security: this principle requires a stable and predictable institutional and regulatory framework. All investors need stability for project development and financing. At project level, development lead times (the time required to obtain the necessary authorisations and permissions) can vary from one to three years depending on the complexity and size of the project and a project’s success will depend on a great extent on how far the developer can be sure of a stable regulatory framework.

In the case of Tunisia and based on the overview given above, it is clear that there is an urgent need to clarify the terms of access to the private sector for investors through the draft Investment Code. This legislation could prove an excellent means of accelerating foreign private project investment in particular and make an immediate impact on financing options without placing a burden on public finance.

- Transparency: the ANME sums up this principle as the “truth about the price of electricity”. This issue relates to the need to have an understanding of exactly how the price of electricity is calculated and its actual cost. For example, the ANME notes that “direct and indirect energy subsidies exploded in 2012 to reach TND 5.3 billion”, a situation which cannot last forever and which will have an immediate impact on the cost of electricity given the growing demand for energy.

As regards avenues of development requiring financial aid, and subject to the reservations set out above in relation to the draft law on the “production of electricity from renewable energies”, this study has shown the benefits of a constant effort to promote the following schemes:

- Autoproduction: this appears to be the most appropriate scheme in terms of Tunisia’s energy balance. In addition, used on a wide scale it would resolve the issue of power cuts during periods of peak demand and relieve the State of the burden of compensating large consumers affected by power cuts. A financial simulation should be carried out to check the scheme’s adaptability under current conditions.

- IPPs: similar to public/private partnerships, if this programme were liberalised (through the Investment Code in particular) and made more systematic, it would be possible for private operators to construct sizeable power plants.

In more general terms, the financing of this type of project through specialist banks at very low rates as shown by the experience of the Kreditanstalt für Wiederaufbau in Germany, which gives 1% loans for renewable energy development projects and public/private risk sharing (or the Green Investment Bank in the United Kingdom);

- Tax incentives: the Investments Incentive Code still in force makes provision for a range of tax incentives (exoneration from customs duties, etc.), which should be included in the Investment Code currently under discussion.
LISTE DES ANNEXES

Annexe n°1 : Contrat pour la fourniture de l'énergie électrique en moyenne tension

Annexe n°2 : Contrat pour la fourniture de l'énergie électrique en haute tension

Annexe n°3 : Contrat d’achat par la STEG de l’excédent de l’énergie électrique produite à partir d’énergie renouvelables et livrée sur le réseau basse tension

Annexe n°4 : Contrat d’achat par la STEG de l’excédent de l’énergie électrique produite à partir d’énergie renouvelables et livrée sur le réseau basse tension pour 1 et 2 kWc – bénéficiaire dispositif PROSOL ELEC

Annexe n°5 : La finance islamique (le cas de l’Ijara) / Opérations de leasing

Annexe n°6 : Éléments de réflexion le modèle français – Cadre réglementaire de l’énergie photovoltaïque

Annexe n°7 : Bibliographie
Annexe n°1 : Contrat pour la fourniture de l'énergie électrique en moyenne tension

Société Tunisienne de l'Électricité et du Gaz
Siège Social - 38, Rue Kheireddine Aflak – 1080 TUNIS
Déclaration de : .................................................................
Adresse : .................................................................

CONTRAT POUR LA FOURNITURE DE L'ÉLECTRICITÉ EN MOYENNE TENSION N°......

Entrée
L'entreprise de distribution à
représentée par son
et désignée ci-après par «公网»,

d'une part,

e la SOCIETE TUNISIENNE DE L'ÉLECTRICITE ET DU GAZ
désignée ci-après par «STDG»

d'autre part,

Il a été convenu entre les parties qui suivent :

Dispositions générales

Article I : Objet du contrat
L'EBB échoue à la STDG, soit par sa propre initiative, soit suite à une demande de l'EBB, la demande de l'interruption temporaire ou définitive du service en moyenne tension.

Article II : Dispositions supplémentaires
Les dispositions générales du présent contrat s'appliquent également aux dispositions supplémentaires mentionnées ci-après :

Article III : Dispositions spécifiques
Les dispositions spécifiques sont notamment celles relatives à la surcharge et à l'interruption temporaires du service.

Article IV : Dispositions finales
Les dispositions finales sont celles qui ont été convenues entre les parties, en conformité avec les dispositions légales et réglementaires en vigueur.

Rèf. : 148
Art. XIV — DUREE DU CONTRAT

10) Précisions concernant le délai de restitution des fonds

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40) CLAUSES DIVERSES

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Annexe n°2 : Contrat pour la fourniture de l’énergie électrique en haute tension

Entré de la Société Tunisienne d’Electricité et du Gaz

Contrat pour la fourniture de l’énergie électrique en haute tension

Dispositions générales

Article 1er : Objet du contrat

Le contrat concernant la fourniture de l’énergie électrique en haute tension est établi entre la Société Tunisienne d’Electricité et du Gaz et [Nom de l’entrepreneur].

Article 2° : Dispositions particulières

Les dispositions particulières du contrat sont établies dans le cahier des charges et dans les documents annexés au contrat.

Annexe 2° : Contrat pour la fourniture de l’énergie électrique en haute tension

Entré de la Société Tunisienne d’Electricité et du Gaz

Le contrat est établi entre la Société Tunisienne d’Electricité et du Gaz et [Nom de l’entrepreneur].

Dispositions générales

Article 1er : Objectif du contrat

Le contrat est établi entre la Société Tunisienne d’Electricité et du Gaz et [Nom de l’entrepreneur].

Article 2° : Dispositions particulières

Les dispositions particulières du contrat sont établies dans le cahier des charges et dans les documents annexés au contrat.

Annexe 2° : Contrat pour la fourniture de l’énergie électrique en haute tension

Entré de la Société Tunisienne d’Electricité et du Gaz

Le contrat est établi entre la Société Tunisienne d’Electricité et du Gaz et [Nom de l’entrepreneur].

Dispositions générales

Article 1er : Objectif du contrat

Le contrat est établi entre la Société Tunisienne d’Electricité et du Gaz et [Nom de l’entrepreneur].

Article 2° : Dispositions particulières

Les dispositions particulières du contrat sont établies dans le cahier des charges et dans les documents annexés au contrat.

Annexe 2° : Contrat pour la fourniture de l’énergie électrique en haute tension

Entré de la Société Tunisienne d’Electricité et du Gaz

Le contrat est établi entre la Société Tunisienne d’Electricité et du Gaz et [Nom de l’entrepreneur].

Dispositions générales

Article 1er : Objectif du contrat

Le contrat est établi entre la Société Tunisienne d’Electricité et du Gaz et [Nom de l’entrepreneur].

Article 2° : Dispositions particulières

Les dispositions particulières du contrat sont établies dans le cahier des charges et dans les documents annexés au contrat.
indiquées aux Dispositions particulières et s'appliquent jusqu'au
31 décembre de la même année. Il se renouvellement annuel, par
contrat rédacteur, par passage d'un, rant annuel par l'une
ou l'autre des parties supplément par titre économique, un tiers au
petit rappel de la formule suivante:

1) Noms et états sociales de l'Abonné :
2) Lieu de l'abonnement :
3) Définition de point de livraison :

Caractéristiques du courant :
4) Nature du courant : alternatif triphasé à la fréquence de 50Hz avec tolérance de 3% en plus ou en moins.
5) Tension de livraison commerciale déterminant le prix de la fourniture : la tension de facturation est de

Mesure de la fourniture :
6) Type de comptage :
7) Tension de comptage :
8) Corrections pour tension de comptage intérieure à la tension de facturation :

Conditions de la fourniture :
9) Facturation de la puissance souscrite et de l'énergie active consommée :

Le tarif applicable à l'abonné pendant le durée du présent contrat est le Tarif Haute Tension.

Les postes livrés du Tarif Haute Tension à quelques postes équivalents sont définis comme suit pour tous les jours de la
saison à l'exception de l'été dont le consommation est facturée uniformément au Tarif Étalon.

<table>
<thead>
<tr>
<th>MOIS</th>
<th>JOUR</th>
<th>POINTE</th>
<th>DUR</th>
<th>NUIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1er Juin au 31 Août</td>
<td>de 6 h 30 à 8 h 30 et de 13 h 30 à 15 h</td>
<td>de 18 h à 22 h</td>
<td>de 22 h à 16 h 30</td>
<td></td>
</tr>
</tbody>
</table>

La STEG aura la faculté moyennant un préavis de 3 mois de modifier cette délimitation des postes horaire.
Ministère de l'industrie et de la technologie

CONTRAT D'ACHAT PAR LA STEG DE L'EXCEDENT DE L'ENERGIE ELECTRIQUE PRODUITE A PARTIR D'ENERGIES RENOUVELABLES ET LIVREE SUR LE RESEAU BASSE TENSION

Annexe n°3 : Contrat d'achat par la STEG de l'excédent de l'énergie électrique produite à partir d'énergies renouvelables et livrée sur le réseau basse tension

ENTRE LES PARTIES :
La Société Nationale d'Electricité et du Gaz désignée ci-après par "STEG" et représentée aux fins du présent par : 

D'une part : 

En application de l'article 2 du décret n° 2009-2773 du 28 septembre 2009 fixant les conditions de transport de l'électricité produite à partir des énergies renouvelables et de la vente de ses excédents à la Société d'Interconnexion de l'Électricité et de Gaz, 

Vu le décret n° 66-9 du 17 Janvier 1964 portant abrogation du câble des charges relatifs à la fourniture de l'énergie électrique sur l'ensemble du territoire de la République : 

A. CONDITIONS GENERALES ET COMMERCIALES

1. DÉFINITIONS ET INTERPRÉTATIONS

Au sens du présent Contrat au mot par : 

Réseau Basse Tension : réseau national de distribution électrique de tension 230/400V à la fréquence de 50 Hz ; 

Producateur : le client de la STEG en ligne Tension, propriétaire du local, ou détenteur mandaté par le propriétaire produisant de l'énergie électrique à partir d'énergies renouvelables appartenant au Producteur ; 

Point de Révision : le point de branchement des conducteurs du câblé de l'installation interne du producteur ; 

Point de livraison est au réseau Basse Tension ; 

Point de raccordement : le point où s'effectue la connexion de l'installation de Production au réseau Basse Tension ; 

Système de comptage : l'ensemble des appareils et accessoires de comptage de l'électricité ; 

Énergie livrée : l'énergie électrique produite par le Producteur sur le réseau Basse Tension ; 

Énergie fournie : l'énergie consommée par le Producteur en toute clôture de la STEG ; 

Pièce installée : la puissance maximale des installations de Production du Producteur ; 

Pièce soumise : la puissance soumise par le Producteur en tout que client auprès de la STEG ; 

PIÈCE 3 : PUISSANCE INSTALLÉE

ARTICLE 1 : DÉFINITIONS ET INTERPRÉTATIONS

Au sens du présent Contrat au mot par : 

Contrat d'achat : le contrat de vente de l'excédent de l'énergie électrique produite par le Producteur et livrée sur le réseau Basse Tension ; 

Énergie fournie : l'énergie consommée par le Producteur en toute clôture de la STEG ; 

Pièce installée : la puissance maximale des installations de Production du Producteur ; 

Pièce soumise : la puissance soumise par le Producteur en tout que client auprès de la STEG ; 

ARTICLE 2 : OBJET DU CONTRAT

Le fournisseur de l'énergie électrique générée à partir des énergies renouvelables et soumises au réseau Basse Tension, tel qu' défini par le loi n° 2009-7 du 9 décembre 2008, bénéficiant par le présent Contrat du droit de vente de l'excédent d'énergie électrique produite, par son installation de Production, exclusivement à la STEG, et ce, dans la limite de la capacité de réseau Basse Tension et conformément à la réglementation en vigueur. 

Le Contrat porté sur l'énergie électrique livrée par le Producteur à partir d'un seul point de livraison est le réseau Basse Tension ; 

Les conditions de transport de l'électricité produite à partir des énergies renouvelables et de la vente de ses excédents à la société d'interconnexion de l'électricité et de gaz, la STEG s'assurant de prélever l'énergie électrique livrée sur le réseau Basse Tension selon les dispositions prévues aux Conditions Particulières du présent Contrat. 

ARTICLE 3 : DOCUMENTS JOINTS

Les documents suivants sont annexés au présent Contrat et en font partie intégrante ; 

Un descriptif de l'installation de Production ; 

Un tableau de la liste d'équipement du Producteur ; 

Un tableau de recevabilité de l'installation ; 

Un certificat de conformité de l'installateur aux Directives CEM/ECE/CIGRE et Normes EN 60958 et à la Norme VDE 0162 ou équivalente ; 

5. Pour le Producteur isolé

Les documents suivants sont annexés au présent Contrat et en font partie intégrante ; 

Un descriptif de l'installation de Production ; 

Un tableau de la liste d'équipement du Producteur ; 

Un tableau de recevabilité de l'installation ; 

Un certificat de conformité de l'installateur aux Directives CEM/ECE/CIGRE et Normes EN 60958 et à la Norme VDE 0162 ou équivalente ; 

Les documents ventés sont au traitement de Production et ont été soumis à l'approbation du décret technique du Producteur isolé ou non isolé. 

ARTICLE 4 : SYSTÈME DE COMPTEAGE

Le système de comptage de l'énergie livrée porté par le Producteur sur le réseau Basse Tension est fourni et installé par la STEG au frais de Production et dévisé par le Producteur. 

Les relevés de décomptage de l'énergie livrée pourront être effectués contre-récepteur, et non écrit au besoin du cycle de relevé indiqué dans les Conditions Particulières du présent Contrat. La fin des relevés de décompte est la charge du Producteur et sera effectuée le plus tôt possible. 

Ce Contrat sera géré par un système de comptage de classe 2. 

Les comptes sont soumis périodiquement au contrôle de l'autorité énergétique. Les comptes d'usager et d'édeneur devront être soumis à la STEG. 

En cas de réputation partielle d'une poche concernant l'intégrité de l'un des compteurs indiqués ci-dessus, les comptes d'usager et d'édeneur des comptes concernés...
ARTICLE 4 : RACCORDEMENT DE L'INSTALLATION DE PRODUCTION AU RESEAU BASSE TENSION DE LA STEG
Les installations internes de raccordement, y compris les dispositifs de protection et les liens, relèvent à la charge du Producteur.

ARTICLE 5 : CONSIGNES DE SÉCURITÉ ET DIRECTIVES RELATIVES À L'INSTALLATION DE PRODUCTION
L'installation de Production est soumise aux conditions suivantes :
1. Tenue de la fiche technique contenant les indications relatives à l'installation de Production.
2. La mise en service de l'installation de Production est soumis à l'obligation d'obtenir une autorisation de l'Organisme d'Exploitation des Réseaux d'Electricité.
3. Les conditions de sécurité et de maintenance de l'installation sont régie par les dispositions légales applicables.

ARTICLE 6 : MODIFICATIONS ET AMÉLIORATION DE L'INSTALLATION DE PRODUCTION
Les modifications et améliorations de l'installation de Production doivent être soumises à l'Organisme d'Exploitation des Réseaux d'Electricité, qui délivrera un permis après examen de la faisabilité des modifications ou améliorations proposées.

ARTICLE 7 : RÉMUNÉRATION DU PRODUCTEUR
La rémunération du Producteur est déterminée en fonction du montant des services fournis et de la qualité de l'installation de Production.

ARTICLE 8 : FORME ET MODALITÉS DE RÉGALISATION PAR LA STEG
Les conditions de régulation de l'installation de Production sont établies dans un accord de réglementation préalablement signé entre la STEG et le Producteur.

ARTICLE 9 : RESPONSABILITÉ DES PARTIES
Chaque partie sera tenue de respecter les obligations qui lui incombent vis-à-vis de l'autre partie, en garantissant l'intégrité et la sécurité de l'installation de Production.

ARTICLE 10 : ASSURANCE
La STEG exigera que le Producteur souscrive une assurance couvrant les risques liés à l'exploitation de l'installation de Production.

ARTICLE 11 : CESSATION
La STEG peut demander la cessation de l'activité du Producteur en cas de non-respect des obligations ou de faillite du Producteur.

ARTICLE 12 : PREMIER TRAVAIL ET CHARGES DE LA STEG
La STEG assurera le premier travail et les charges liées à l'installation de Production, notamment les travaux de mise en service et les réparations d'urgence.

ARTICLE 13 : REVISION ET MAINTENANCE DE L'INSTALLATION DE PRODUCTION
Les travaux de révision et de maintenance de l'installation de Production sont effectués par la STEG sur la base d'accords préalablement signés.

ARTICLE 14 : RÉGULATIONS ET TARIFS
Les tarifs réglementés de l'installation de Production sont établis par la STEG et sont soumis à l'approbation de l'Organisme d'Exploitation des Réseaux d'Electricité.

ARTICLE 15 : RÉGLEMENTATION DE L'INSTALLATION DE PRODUCTION
La réglementation de l'installation de Production est établie par l'Organisme d'Exploitation des Réseaux d'Electricité et est soumise à l'approbation de l'Organisme d'Exploitation des Réseaux d'Electricité.
**ARTICLE 21 : CAPACITÉ THERMIQUE DES OUVRAGERS**

Les lignes de transfert ou les transformateurs moyenne tension / haute tension devront être capables d'absorber le taux de l'énergie produite par l'installation de Produktion vers le réseau de distribution en cas de consommation forte sur le réseau haute tension.

1. **Transformer**

La somme des puissances annuelles des Installations de Produktion raccordées au transformateur moyenne tension / haute tension doit être inférieure à la puissance nominale du transformateur.

2. **Chiens BT**

Le câble installé au point de raccordement de la ligne de transfert moyenne transformateur haute tension, doit absorber la somme des puissances annuelles d'être fonctionnés par les Installations de Production raccordées sur le circuit d'alimentation.

**ARTICLE 22 : RESPECT DES PUISSANCES DE COURT CIRCUIT**

L'augmentation de la puissance de court-circuit en point de raccordement, due au raccordement de l'Installation de Production, ne doit pas craindre de dépasser des puissances de court-circuit de dimensionnement du matériel du réseau de distribution.

**ARTICLE 23 : CONSIGNES RELATIVES AU FONCTIONNEMENT DE LA TELECOMMANDE CENTRALISÉE**

L'Installation de Produktion ne doit pas extérioriser son fonctionnement de la télécommande centralisée du réseau de distribution.

**ARTICLE 24 : CONSIGNES RELATIVES AU SYSTÈME DE PROTECTION ET DE DÉCOUPAGE**

1. **Mise en place d'un dispositif de découpage**

L'Installation de Produktion doit être munie d'un système d'arret et d'un dispositif de découplage installé entre le secteur du générateur et l'installation finale. Ce dispositif permet d'éviter de dégager inutilement l'installation de Produktion du réseau haute tension.

2. **Mise en place d'un dispositif de découplage**

La mise en service du découplage doit être effectuée par les Conditions Techniques de Raccordement prévues au présent Contrat sont respectées.

**ARTICLE 25 : MISE EN SERVICE ET RACCORDEMENT DE L'INSTALLATION DE PRODUCTION**

Le raccordement de l'installation de Produktion par la STEG ne peut être effectué qu'après établissement d'un protocole verbal de raccordement et de mise au service signé conjointement par la STEG et le Producteur après avoir admis une attestation de conformité de l'installation de Produktion aux normes et en vigueur de l'arrêté paru au Journal Officiel.

**ARTICLE 26 : CONSIGNES D'EXPLOITATION ET DE SÉCURITÉ**

L'Installation de Produktion doit être effectuée de manière sécurisée par le Producteur en application des règles de sécurité relatives aux conditions de fonctionnement de l'Installation de Produktion.

**ARTICLE 27 : MODALITÉS D'EXPLOITATION**

1. **Exploitation en régime normal**

En régime normal la raccordement doit être effectué de manière continue et permanente. Il est souhaité que les actions prises en matière de prévention et de sécurité soient réalisées par les Services du Producteur proprement dits.

2. **Interruptions programmées**

Toutes interruptions programmées par la STEG sur le réseau de distribution nécessiteront l'obtention de l'installation de Produktion du réseau haute tension, soit suivant les conditions techniques de raccordement, soit suivant les conditions relatives à la sécurité, soit suivant les conditions relatives aux conditions d'exploitation de l'installation de Produktion.

**ARTICLE 28 : MISE EN SERVICE ET RACCORDEMENT DE L'INSTALLATION DE PRODUCTION**

Le raccordement de l'installation de Produktion par la STEG ne peut être effectué qu'après établissement du protocole verbal de raccordement et de mise au service signé conjointement par la STEG et le Producteur après avoir admis une attestation de conformité de l'installation de Produktion aux normes et en vigueur de l'arrêté paru au Journal Officiel.
Annexe n°4 : Contrat d’achat par la STEG de l’excédent de l’énergie électrique produite à partir d’énergie renouvelables pour 1 et 2 kWc – bénéficiaire du programme PROSOL ELEC

MINISTÈRE DE L’INDUSTRIE ET DU COMMERCE

Contrat d’Achat par la STEG de l’excédent de l’énergie électrique produite à partir de l’énergie solaire photovoltaïque par le Producteur résidentiel en basse tension souscrivant pour 1 et 2 kWc

Bénéficiaire du programme PROSOL ELECTRIC

N

ENTRE LES PARTIES :

La Société Tunième de l’Electricité et du Gaz désignée ci-après par "STE.G" et représentée aux fins des présentes par :

D’une part

ET

D’autre part

Le Producteur dont le nom et adresse figurent ci-dessus signé ci-après par le "Producteur".

PREAMBLE

Vu la loi nº 2002-72 du 2 Aout 2002 relative à la mise en œuvre de l’énergie solaire que modifie et compléte la loi nº 2009-7 du 9 février 2009,

Vu l’arrêté nº 2009-213 du 28 septembre 2009 fixant les conditions de transport de l’électricité produite à partir des énergies renouvelables et de la vente de ces excédents à la société nationale de l’électricité et du Gaz,

Vu la convention de partenariat STEG-Alme nº…../…

Vu la convention de partenariat STEG-EAÏRA BANK nº…../…

Vu le formulaire d’adhésion au programme PROSOL ELECTRIC et de la souscription à un contrat houssier signé par le producteur

S’il a été convenu et est ci-après précisé :

A. CONDITIONS GÉNÉRALES

ARTICLE 1 : DÉFINITIONS ET INTERPRÉTATIONS

Au sens des présentes contrats, on se référera :

Résine Basse Tension : le réseau national de distribution électrique de tension 230/400 V à la fréquence de 50 Hz ;

Producteur : le débiteur, client de la STEG en Basse Tension, propriétaire du lieu, ou édifice mandaté par ce dernier, produisant l’énergie électrique à partir d’une installation photovoltaïque et débitant sur le réseau Basse Tension ;

Parti du libellé au présent contrat deBezier, du contrat de prestation de service de raccordement du contrat de l’installation solaire du Producteur ; le présent de
ARTICLE 8 : MESURE ET CONTROLE DE L'ENERGIE ELECTRIQUE LIVREE A LA STEG.

La mesure de l'énergie électrique livrée au consommateur est effectuée au moyen d'un compteur électronique.

Il est dû à la STEG d'interception de la prise de l'énergie électrique.

La STEG prendra toutes les mesures nécessaires pour le déblocage des circuits dans les situations difficiles et se servira d'un bureau d'appel ou de service de l'approvisionnement.

En cas de force majeure, la délégation de l'approvisionnement de l'énergie électrique, la partie déléguée devra informer l'autre partie de la cessation de l'approvisionnement, de la durée de l'interruption et des mesures de sécurité à prendre.

Une clause de suspension ou de résiliation sera mentionnée dans la convention de l'article 9 du contrat.

ARTICLE 10 : RESPONSABILITE DES PARTIES.

Chaque partie s'engage mutuellement aux dédommagements de tout autre en cas d'insuffisance ou de non-réception des énergies livrées ou en cas de panne ou de panne dans les entreprises de l'approvisionnement.

ARTICLE 11 : PRIX DE LIVRAISON ET MODALITÉ DE FACTURATION.

Le prix de livraison est établi en fonction des conditions de la fourniture de l'énergie électrique.

La facturation est effectuée par la STEG sur la base du débit de l'énergie livrée et par le nombre de jours de charge.

ARTICLE 12 : SÉCURITÉ ET RÉGLAGÉE.

La STEG s'engage à respecter la sécurité et la réglementation lors de la livraison de l'énergie électrique.

Il est dû à la partie de l'approvisionnement de l'énergie électrique, la partie déléguée devra informer l'autre partie de la cessation de l'approvisionnement, de la durée de l'interruption et des mesures de sécurité à prendre.

La STEG s'engage à respecter la sécurité et la réglementation lors de la livraison de l'énergie électrique.

ARTICLE 13 : FORCMAJURE.

Il est dû à la partie de l'approvisionnement de l'énergie électrique, la partie déléguée devra informer l'autre partie de la cessation de l'approvisionnement, de la durée de l'interruption et des mesures de sécurité à prendre.

La STEG s'engage à respecter la sécurité et la réglementation lors de la livraison de l'énergie électrique.

La partie déléguée devra informer l'autre partie de la cessation de l'approvisionnement, de la durée de l'interruption et des mesures de sécurité à prendre.

La STEG s'engage à respecter la sécurité et la réglementation lors de la livraison de l'énergie électrique.
Annexe n°5 : La finance islamique (le cas de l’Ijara) / opérations de leasing

La loi de finances pour 2012 a étendu le régime fiscal applicable aux opérations de leasing aux opérations de financement « Ijara » réalisées par les établissements de crédit.

Ces mesures consistent dans :

1. La déduction pour la détermination du bénéfice imposable des amortissements des actifs immobiliés exploités dans le cadre des contrats de « Ijara » sur la base de la durée du contrat. Cette durée ne doit pas être inférieure à la durée minimale fixée par le décret n° 2008-492 du 25 février 2008, fixant les taux maximum des amortissements linéaires et la durée minimale des amortissements des actifs exploités dans le cadre des contrats de leasing et la valeur des actifs immobiliés pouvant faire l'objet d'un amortissement intégral au titre de l'année de leur utilisation ;

2. L'enregistrement au droit fixe de 15 dinars par page des contrats de vente d'immeubles conclus entre les établissements de crédit et le preneur dans le cadre d'opérations de « Ijara », que la vente soit faite au cours de la durée de location ou à son terme ;

3. La détermination de l'assiette soumise à la TVA : à ce titre, la taxe sur la valeur ajoutée est liquidée sur la base de tous les montants dus au titre des opérations de « Ijara » réalisées par les établissements de crédit ;

4. La déduction de la taxe sur la valeur ajoutée due sur les opérations soumises, le montant de la taxe sur la valeur ajoutée ayant grevé les achats d'équipements, matériels et immeubles destinés à être exploités dans le cadre des contrats de « Ijara » et ce, nonobstant l'enregistrement comptable de ces achats ;

5. Le bénéfice des mêmes avantages et exonérations accordés en vertu de la législation en vigueur au titre de l'acquisition des équipements, matériels et immeubles dans le cadre des contrats de « Ijara » ;

6. L'exonération de la retenue à la source au taux de 50% au titre la TVA due sur les montants payés par les services de l’État, les collectivités locales, les entreprises et établissements publics dans le cadre des contrats de « Ijara » ;

7. L'exonération de la retenue à la source au taux de 1,5% due sur les montants payés dans le cadre des contrats de « Ijara » ;

8. La suspension de la taxe sur la valeur ajoutée au titre des redevances de loyers relatifs aux biens qui bénéficient d’un avantage en matière de TVA et acquis dans le cadre des contrats de « Ijara » ;

9. Le bénéfice des mêmes avantages et exonérations accordés en vertu de la législation en vigueur au titre de l'acquisition des équipements, matériels et immeubles dans le cadre des contrats de « Ijara ».
Annexe n°6 : Éléments de réflexion le mo-
dèle français – Cadre réglementaire de l'éner-
gie photovoltaïque

Pour comprendre le mécanisme actuel qui encadre le modèle français en matière de promotion de l'énergie photovol-
taïque, il convient de revenir sur les circonstances qui ont conduit à la naissance et à la définition d'un tarif d'achat comme mécanisme de soutien à cette filière.

Historique – principaux jalons :

De 1992, date à laquelle fut raccordé le premier système photovoltaïque au réseau électrique français, aux années 2000, plusieurs centaines de petites installations photovoltaïques de quelques kilowatt ont pu être raccordées au réseau électrique, avec le seul soutien de l'union européenne ; le cadre législatif et réglementaire étant totalement absent en droit interne.

Le surplus de l'énergie produite par le système photovoltaïque et non consommé par le particulier, était de facto injecté à la filière électricité, avec la mise en place de contrats de vente d'électricité entre le producteur et la société EDF et les Entreprises Locales de Distribution (régies locales) de l'énergie photovoltaïque injectée sur le réseau. La valeur du tarif d'achat et ses modalités d'application sont déterminées par arrêté ministériel.

Dès 2000, la France fait donc le choix d'opter pour un mécanisme de soutien basé sur le tarif d'achat, à l'instar de ses voisins outre Rhin dont l'expérience remonte aux années 1990 sous l'impulsion des collectivités territoriales et conduite à l'adoption en 2001 d'un système de tarif d'achat par la loi EEG.

Pour la première fois, en 2003, l'État français introduit un tarif d'achat à 15 €/kWh, majoré de 15 centimes si l'installation est intégrée au bâtiment, soit 0,55€/kWh. L'augmentation du tarif d'achat, chaque année, combinée à une baisse du prix du matériel, conduit, en 2009, à une bulle spéculative sans précédent incitant l'état à mettre en place des mesures drastiques à commencer par la suspension pour une durée de 3 mois de tout achat d'énergie photovoltaïque (décès du 11 décembre 2010), compte tenu du mode de financement du tarif d'achat (cf ci-dessous).

Cet arrêt brutal de la filière va avoir des conséquences drama-
ques.

En effet, alors que les premières d'une industrie française s'étaient mises en place à compter de 2006, les prévisions économiques, sociales et fiscales des différents acteurs ont toutes été anéanties par l'introduction du moratoire et de ses conséquences sur les projets.

Dès lors il est légitime de s'interroger sur les raisons qui ont conduit l'état français à adopter ces mesures :

Les fondements du tarif d'achat

En préambule, il convient de rappeler que le tarif d'achat est financé par l'ensemble des consommateurs finaux d'électricité, le fait de pouvoir soutenir les producteurs de toute énergie renouvelable est un moyen de financement du tarif d'achat (cf § ci-dessous).

Les objectifs ont été appuyés par la Programmation Plurian-
nuelle des investissements instituée à l'article 6 de la loi du 10 février 2000 qui « fixe les objectifs en matière de répartition des capacités de production par source d'énergie primaire et, le cas échéant, par technique de production et par zone géographique. Cette programmation est établie de manière à laisser une place aux productions décentralisées, à la cogé-
nération et aux technologies nouvelles. » (Article 6 de la loi du 10 février 2000). La PPI actuelle prévoit un objectif de développement de 5000 MW de puissance photovoltaïque d'ici 2020.

Le tarif d'achat est un mécanisme de soutien qui a fait ses preuves dans plusieurs pays et qui permet d'atteindre les objectifs précités. Seulement, pour éviter toute spéculation qui serait néfaste pour ce marché, il convient d'encadrer la valeur de ce tarif afin que seule une rentabilité correcte soit garantie au producteur.

Par conséquence, tout tarif dont le niveau serait trop élevé conduirait à un enrichissement de quelques acteurs au détrit-
ment d'un développement prévenant d'une filière nationale. Un tarif d'achat correct doit donc être le fruit d'un équilibre tenant compte de la baisse structurelle du prix des matériaux et d'une rentabilité suffisante pour permettre l'investissement.

La mise en place de ce mécanisme de soutien n'est qu'un dispositif temporaire qui verra sa fin dans l'avènement de la panérie nationale.

C'est dans cette perspective que le gouvernement français a adopté en mars 2011 de nouveaux tarifs d'achat, basés sur une dégressivité du tarif d'achat tous les trimestres en fonction du nombre de demandes de raccordement au réseau. Malheureusement la fréquence adoptée pour cette dégressi-
vité, ne permet pas une visibilité suffisante et conduit à un tarif d'achat trop faible eu égard au prix des matériaux.

Ci-dessous les tarifs d'achat actuellement en vigueur :

Les installations de puissance supérieures à 100 kWc sont soumises à une procédure d'appel d'offre instrumentée par la Commission de Régulation de l'Énergie, sensée « prévenir tout phénomène spéculatif ou d'emballement sur le segment concerné, grâce à un contrôle optimal des volumes. » (source : Ministère du développement durable).

Force est de constater que face à la complexité administrative exigée dans le cadre de ces appels d'offre, nombreux sont les producteurs et professionnels du secteur à avoir renoncé à leurs candidatures.

Le schéma du fonctionnement général de ce système est représenté ci-dessous (p. 69).
Communique le nombre de demande de raccordement par trimestre

**Demande de raccordement et de contrat d’achat**

**Commission de Régulation de l’Énergie (AER)**
- Transmet à l’ERDF et aux régies locales le nombre de demande de raccordement par trimestre

**ERDF et Régies locales**
- Gestionnaire du réseau électrique
- Transmet au producteur le contrat d’achat

**Producteurs photovoltaïques**
- Attestent sur l’honneur que son installation répond aux critères de l’arrêté pour la fixation du tarif d’achat

**CONSEIL SUPÉRIEUR DE L’ÉNERGIE**
- Instance officielle de la République
- Donne son avis sur le projet d’arrêté tarifaire

**Commission de Régulation de l’Énergie (AER)**
- Transmet aux ministres les valeurs des Tarifs d’achat, déterminées selon formule mathématique tenant compte du nombre de demande de raccordement

**EDF AOA et Régies locales**
- Acheteurs de l’électricité photovoltaïque
- Signent le contrat d’achat

**DREAL (Direction Régionales de l’Environnement, de l’Aménagement et du Logement)**
- En charge du contrôle du tarif d’achat déclaré par le producteur
Annexe n°7 : Bibliographie

■ Entreprise Tunisienne d’Activités Pétrolières, Rapport Annuel, 2011


■ GIZ, Rapport final : étude sur les potentielles des Energies Renouvelables pour la production de l’électricité destinée à la consommation nationale en Tunisie ainsi que pour l’exportation vers l’Union Européenne, 2013

■ Ubasfrance de Tunis, Le marché des énergies renouvelables en Tunisie, 25/08/2011

■ Programme MEDA de l’Union Européenne, Intégration progressive des marchés d’électricité de l’Algérie, du Maroc et de la Tunisie dans le marché intérieur de l’électricité de l’Union Européenne, 2010


■ OCDE « Examen de l’OCDE des politiques d’investissement en Tunisie » 2012

■ Avant projet du Code des Investissements (version du 27 février 2013)

■ Code d’Incitations aux investissements (promulgué par la loi n° 93-120 du 27 décembre 1993)

■ Code des droits réels