التعاون الألماني
DEUTSCHE ZUSAMMENARBEIT

Ministère de l'Industrie et des Petites et Moyennes Entreprises

الوكالة الوطنية للتحكم في الطاقة
ANME

RENEWABLE ENERGY PROJECTS IN TUNISIA

GUIDE SUMMARY

May 2019 Version

ON BEHALF OF

- German Federal Ministry for Economic Cooperation and Development (BMZ)
- German Federal Ministry of the Environment, Nature Conservation and Nuclear Safety (BMU)

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IN COOPERATION WITH

- Ministry of Industry and Small and Medium Enterprises
- National Energy Management Agency (ANME)

PROJECTS

- Support for the implementation of the Tunisian Solar Plan (APST)
- Solar Market Reinforcement (RMS)

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DESIGN & LAYOUT

Tractebel, in collaboration with GARCICOM
Photo credits: GARCICOM

DISCLAIMER

Renewable energy project development regulations and procedures in Tunisia are complex, partly recent and/or in development. As a consequence, it is not always possible to comprehensively cover all of the steps of the RE project development process, or to translate how some of the new procedures are applied in practice. Also, some of the **on-going or upcoming changes in the regulatory framework** cannot be reflected yet, mainly due to the lack of details at this stage regarding their future and practical implementation.
Nevertheless, the best efforts have been deployed to describe the current state of the existing processes and procedures in force **until May 2019**. The GIZ and its implementing partners will not be liable for any mistake or misuse of the information within this guide. Furthermore, this guide shall under no circumstances replace or be used in lieu of legal texts and existing and published official directives by the competent Tunisian authorities.

DATE

May 2019

CONTACT

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Guide Summary

Note: Click on sub-section to access content

DEFINITIONS

ANME	Agence Nationale pour la Maitrise de l'Energie / *National Energy Management Agency*
APII / APIA	Agence de Promotion de l'Industrie et de l'Innovation / Agence de Promotion des Investissements Agricoles *Industry and Innovation Promotion Agency / Agricultural Investment Promotion Agency*
APST	Appui à la Mise en œuvre du Plan Solaire Tunisien / *Support to the implementation of the Tunisian Solar Plan*
ARP	Assemblée des Représentants du Peuple / *People's Assembly*
EBRD	Banque Européenne pour la Reconstruction et le Développement / *European Bank for Reconstruction and Development*
LV	Low Voltage
CSP	Concentrated Solar Power plant
CTER	Commission Technique de production privée d'électricité à partir des ENR / *Technical Commission of private RE power generation*
RE	Renewable energy
FIPA	Agence de Promotion de l'Investissement Extérieur *(Foreign Investment Promotion Agency)*
FTE	Fonds de Transition Energétique / *Energy Transition Fund*
FTI	Fonds Tunisien d'Investissement / *Tunisian Investment Fund*
GIZ	Agence de coopération internationale allemande pour le développement / *German international cooperation agency*
GW	Gigawatt
HV	High voltage
IFC	International Finance Corporation
IPP	Independent Power Producer
ITI	Instance Tunisienne de l'Investissement (also *TIA : Tunisia Investment Authority*)
JORT	Journal Officiel de la République Tunisienne / *Official Journal of the Republic of Tunisia*
kW	Kilowatt
kWh	Kilowatt-hour
MALE	Ministère des Affaires Locales et de l'Environnement / *Ministry of Local Affairs and Environment*
MDEAF	Ministère des Domaines de l'Etat et des Affaires Foncières / *Ministry of State Domains and Land Affairs*
ME	Ministry in charge of Energy
MF	Ministry of Finance
MIPME	Ministère de l'Industrie et des Petites et Moyennes Entreprises / *Ministry of Industry and Small and Medium Enterprises (SME)*
SME	Small and Medium Enterprises
MV	Medium voltage
Mtoe	Millions of tons of oil equivalent
MW	Megawatt
MWp	Megawatt peak
MWh	Megawatt-hour
NA	Not applicable
PPA	Power Purchase Agreement
PST	Plan Solaire Tunisian / *Tunisian Solar Plan*
PV	Photovoltaic
RMS	Renforcement du Marché Solaire / *Solar Market Reinforcement*
SICAR	Société d'Investissement en Capital à Risque / *Venture Capital Investment Company*
STEG	Société Tunisienne de l'Électricité et du Gaz / *Tunisian Company of Electricity and Gas*

FOREWORD

The Tunisian energy sector is facing strategical, economical, social and environmental challenges. Energy sourcing, particularly in the power sector, relies heavily on natural gas (97% of total power generation), of which 50% is imported from neighboring Algeria, given the limited available national resources. Furthermore, electricity demand is increasing. As a consequence, the primary energy balance deficit has been aggravating for the past 15 years, reaching 50% in 2018.

The Tunisian Solar Plan (PST) is the national program aiming at reaching the renewable energy development strategy targets. The goal is to increase the total share of renewables in the electricity generation mix from 3% today to 30% by 2030.

In order to reach these targets, Tunisia has implemented a new regulatory framework through the enactment, in 2015, of *Law n°2015-12 relative to electricity generation by renewable energy sources*, which details three regulatory schemes: self-consumption, "authorizations" through call for projects, and "concessions" through call for tenders.

In this context, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in cooperation with the Ministry of Industry and Small and Medium Enterprises (MIPME) and the National Energy Management Agency (ANME) have launched the development of guides focused on renewable energy projects in Tunisia for **project developers and investors**.

The present **Guide Summary** provides useful information for investing in a solar PV or wind project in Tunisia. It gives a global view of the context, the regulatory schemes and the procedures applicable to projects, as well as the investment framework known at the present date **(May 2019)**.

Please not that in case of discrepancies, the French version of the present guide shall prevail.

The reader can refer to the **Detailed Guide** for more detailed information (in French) regarding the context, the stakeholders, the regulatory schemes, the development and the financing procedures.

It is reminded that some of **the on-going or upcoming changes in the regulatory or procedural framework** can't be reflected yet, mainly due to the lack of details at this stage regarding their future and practical implementation.

The technologies and schemes included within the scope of this guide are presented in the table below. The present guide does not cover the concessions for export scheme, Concentrated Solar Power (CSP), biomass, hydropower and installations connected to the LV grid.

Scheme	Self-consumption	Authorization	Concession
Technology	Solar PV or Wind		
Project type	Connected to the HV/MV grid		
Capacity by scheme	All capacities	PV ≤ 10 MWp Wind ≤ 30MW	PV > 10 MWp Wind > 30MW

ENERGY CONTEXT

01

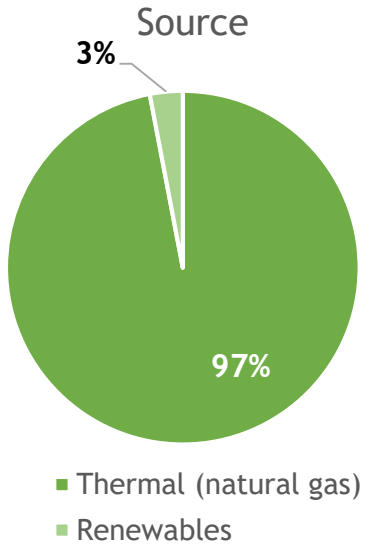
1. Power and Renewable Energy sector in Tunisia
2. The Tunisian Solar Plan
3. Renewable Energy projects in Tunisia

1.1. POWER AND RENEWABLE ENERGY SECTOR IN TUNISIA

The energy situation in Tunisia is marked by limited resources, a decrease in production and a sharp increase in demand. The gap between energy generation and national demand in hydrocarbons has created a deficit in the primary energy balance, which reached 49% in 2018, against 15% in 2010.

By the end of 2018, the power generation fleet had reached an installed capacity of 5476 MW, of which 5005 MW belonged to the STEG and 471 MW to a single private producer (Carthage Power Company, CPC). Electricity generation increased from 12091 GWh in 2005 to 18988 GWh in 2018, recording an average annual growth rate of 4%.

Mainly composed of thermal power plants, this fleet is the largest national consumer of natural gas. Given the decrease in natural gas production (-36% over period 2010-2018), the heavy reliance on hydrocarbons poses a serious threat to the security of power generation. 97% of electricity is generated by natural gas; the share of renewables has not exceeded 3%.



As a consequence of the increase in natural gas prices, electricity tariffs have increased several times. In comparison with the 2010 tariffs, increases have been significant and have impacted almost every consumer (with the exception of low-consumption households - social tariff). The tariffs applied to companies connected to the MV grid and under the “uniform tariff” subscription have increased by 41% since 2010.

The number of operational plants producing electricity from RE to date are limited in Tunisia, despite the abundant resources. The main achievements so far can be summarized as follows:

Technology	Realization
Wind	2 farms totaling an installed capacity of **245 MW** in northern Tunisia
Solar PV	Installed capacity of over **55 MW** under the **self-consumption scheme** (mainly connected to the LV grid)
Hydropower	Global installed capacity of **62 MW**

1.2. The Tunisian Solar Plan (PST)

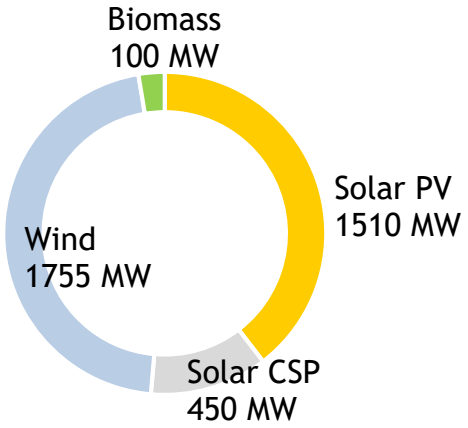
Tunisia is a signing party to the 2015 Paris Climate Agreement. The Government has thus committed to Nationally Determined Contribution (NDC) to reduce its greenhouse gas emissions in all sectors, including energy, where a reduction of 46% by 2030 compared to the base year 2010 is targeted. This reduction in carbon intensity notably requires the expansion of renewable energy projects, which are promoted by the Tunisian Solar Plan.

The Tunisian Solar Plan aims at developing an additional renewable energy installed capacity of 3815 MW by 2030. The targeted share per technology is detailed in the chart on the right.

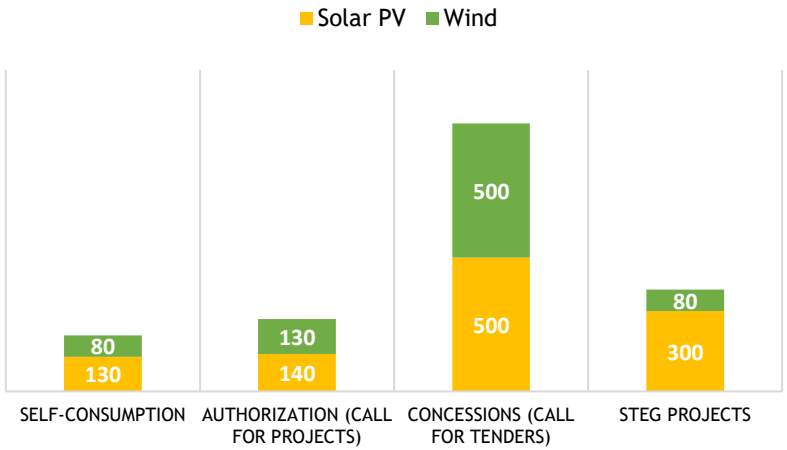
With the aim of reaching the 2020 intermediary targets, the Tunisian Government published the *01/2016 Renewable Energy Generation Notice*, fixing the installed capacity 2017-2020 targets by technology and regulatory scheme. The notice has set an installed capacity target of 1000 MW: 650 MW of Solar PV and 350 MW of Wind.

Following the recommendations of the December 7th and *8th Conference regarding the acceleration of renewable energy project development*, the Tunisian Government decided to update the *01/2016 Notice* objectives bringing the total installed capacity target to **1860 MW by 2022**.

As a consequence, and following the update of the 2017-2020 targets, a significant share of the 2021-2025 targeted installed capacity has been advanced.



Tunisian Solar Plan 2030 installed capacity targets by technology (in MW)



Tunisian Solar Plan 2017-2022 installed capacity targets (as per updated 01/2016 Notice) by technology (in MW)

1.3. RENEWABLE ENERGY PROJECTS IN TUNISIA

- **Self-consumption scheme**

Over the 2017-2018 period, 66 solar PV projects connected to the MV grid have been authorized by the Ministry, totaling an installed capacity of 15.3 MWp. The total authorized capacity of projects connected to the MV grid is 17 MWp. So far, no wind project has yet been authorized under this scheme.

- **Authorization scheme**

Several calls for projects have been launched since 2017 for the development of solar PV and wind projects, with a total capacity of 270 MW. Furthermore, in May 2018, the Tunisian Government re-launched the first wind energy call for projects while increasing the total capacity target by 130 MW. These calls for projects have enabled the selection of the following projects:

Projects	May 2017 call for projects	May 2018 call for projects
Solar PV	**10** MW : 6 selected projects (April 2018) **1** MW : 4 selected projects (April 2018)	**10** MW : 6 selected projects (March 2019) **1** MW : 10 selected projects (April 2019)
Wind	-	**30** MW : 4 selected projects (January 2019)

- **Concession scheme**

In May 2018, the Tunisian Government launched a pre-qualification tender for the development under the *Concession Scheme* (BOO – Build Own Operate) of the following projects :

Projects	May 2018 pre-qualification call for tenders	Pre-qualification results (November 2018)
Solar PV	5 projects on state-owned land (total of 500 MW)	16 selected sponsors (projects on state-owned sites)
Wind	• Total of 300 MW across 2 state-owned sites • Total of 200 MW on private sites	12 selected sponsors (projects on state-owned sites) *Private sites: Results still pending*

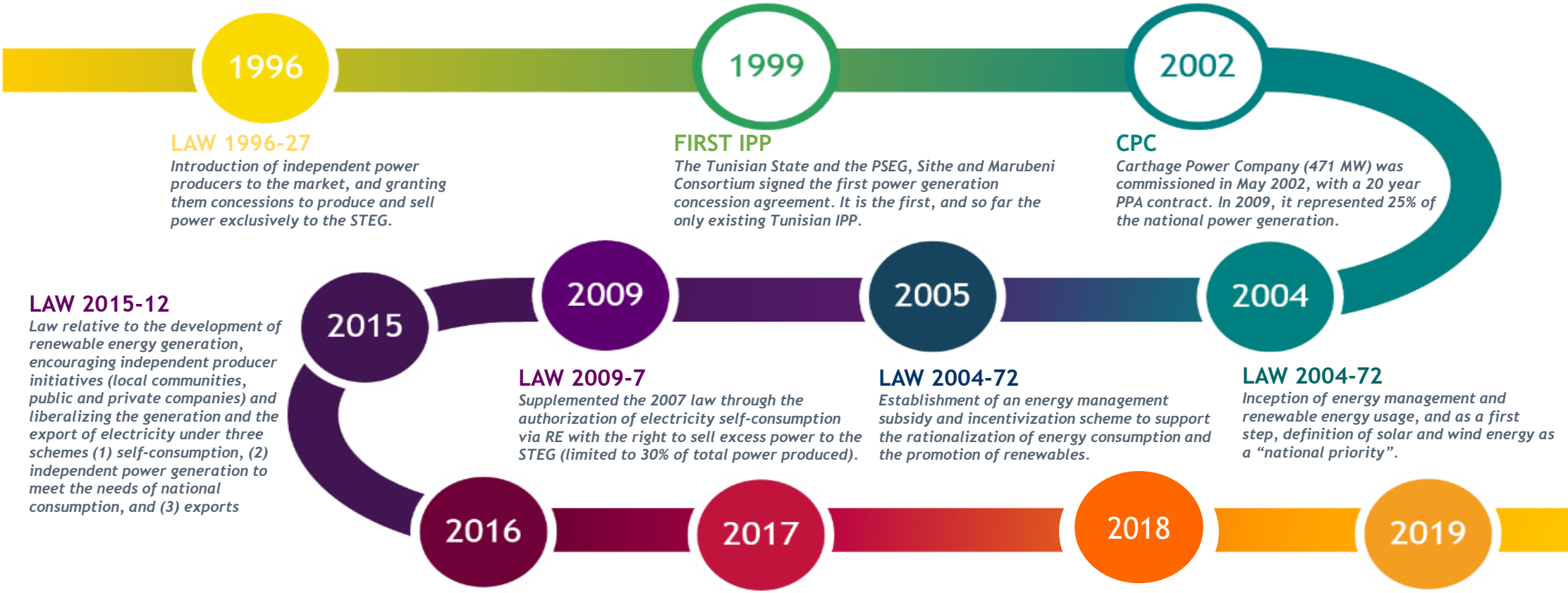
The restricted call for tenders for projects on state-owned sites was launched in March 2019.

REGULATORY FRAMEWORK

02

1. Key dates and main applicable texts on renewable energy projects
2. Law n°2015-12 governing renewable energy project implementation

2.1. KEY DATES AND MAIN APPLICABLE TEXTS ON RENEWABLE ENERGY PROJECTS

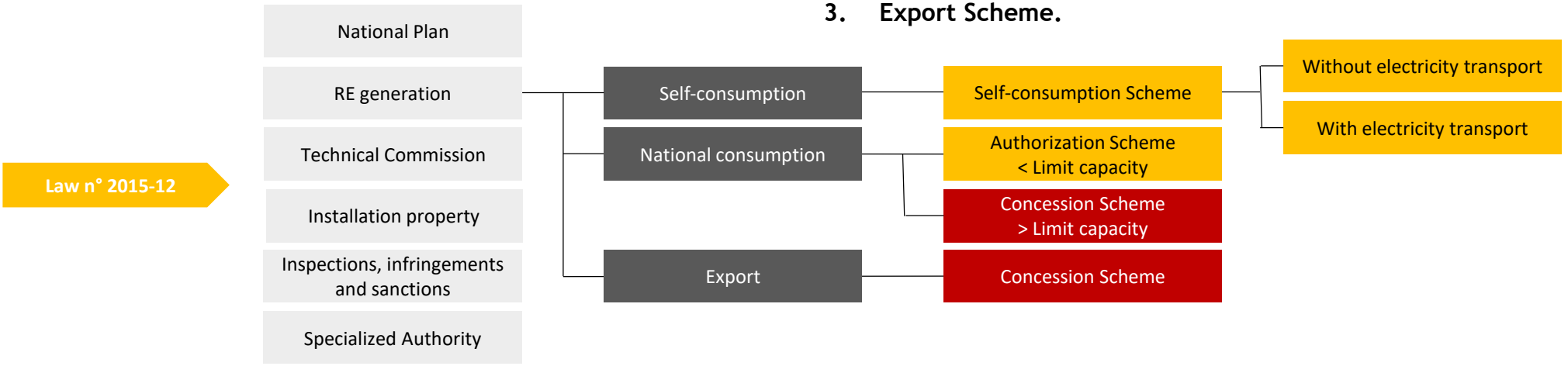


2.2. LAW N°2015-12 GOVERNING RENEWABLE ENERGY PROJECT IMPLEMENTATION

Law n°2015-12 is the main text regarding renewable energy in Tunisia. Enacted on the 11th of May 2015, this law has established a legal framework governing the development of renewable energy projects. It describes the National Plan for the generation of electricity through renewable energy sources, which describes the project development framework. This law also describes the role of the Technical Commission of private power generation through renewables, the installation and decommissioning obligations, the inspection and infringement procedures, the role of the Authority in charge of examining issues and claims related to renewable energy projects.

The three resulting power generation regulatory schemes are:

1. **Self-consumption (HV-MV) ;**
   - On-site (without power wheeling) ; and
   - Off-site (remote site), with power wheeling
2. **The total and exclusive sale of the power to the STEG to satisfy national demand;**
   - Under the authorizations scheme, below a given capacity limit; and
   - Under the concessions scheme, above a given capacity limit.
3. **Export Scheme.**

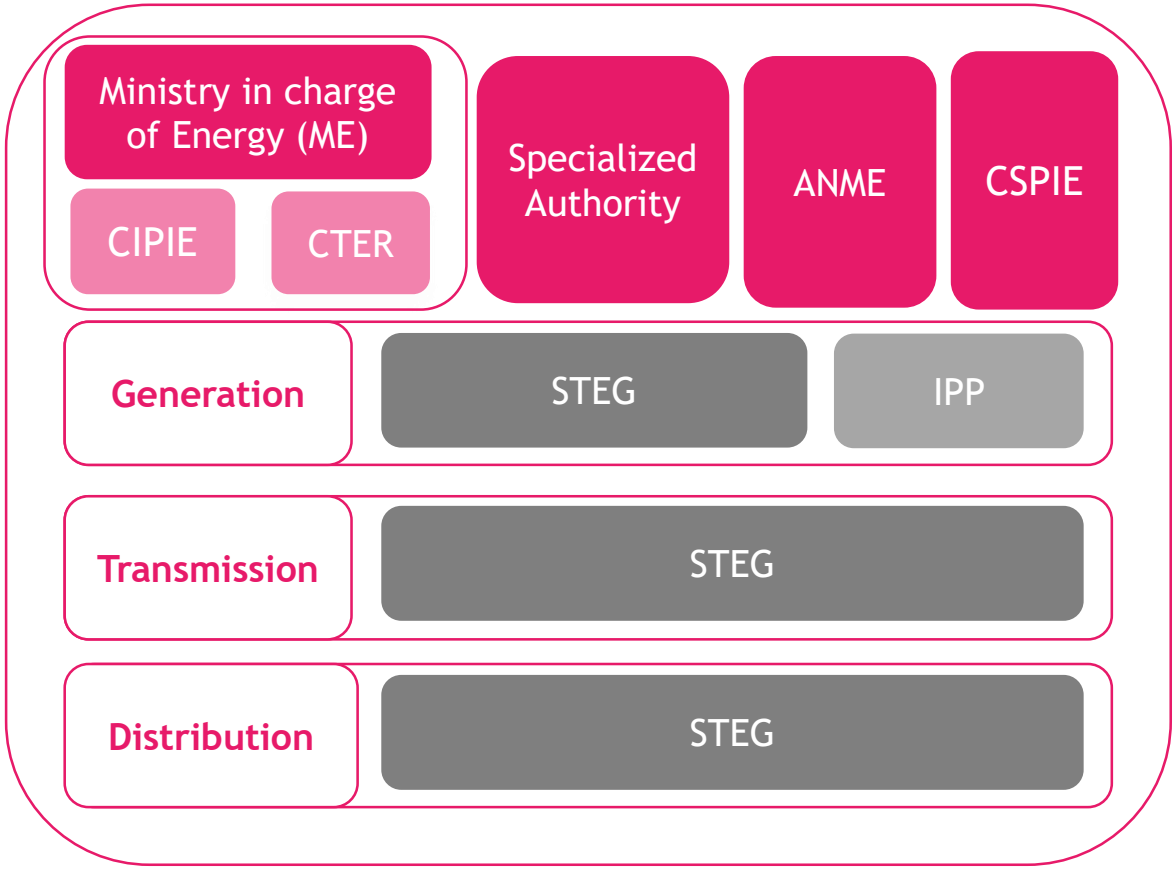


***Note**: The Cross-sectional Law on Improvement of the Business Climate adopted by the People's Assembly (ARP) on April 23, 2019 and aiming at mobilizing investment in various fields, includes amendments to the provisions of Law No. 2015- 12. These changes are related to projects under the self-consumption scheme and connected to the MV-HV grid (see further information in the **Detailed Guide**).*

RENEWABLE ENERGY STAKEHOLDERS IN TUNISIA

03

3.1. INSTITUTIONAL ORGANIZATION OF THE TUNISIAN POWER SECTOR



ANME : National Energy Management Agency
Specialized Authority: Authority in charge of examining issues and claims related to renewable energy projects
CIPIE : Interdepartmental Commission of independent power generation
CTER : Technical Commission of private renewable power generation
CSPIE : Higher Commission of independent power generation
IPP : Independent Power Producer
STEG : Tunisian Company of Electricity and Gas

***Note**: At this time, there is no independent power sector regulation authority in Tunisia. However, the Ministry in charge of Energy has announced in 2018 the creation of this regulation authority in the near future.*

3.2. ROLE OF THE MAIN INSTITUTIONAL STAKEHOLDERS

Within **the Ministry in charge of Energy (ME)**, the Electricity and Renewable Energy General Directorate (DGEER) is in charge of issues relating to renewable energy. This entity publishes the different calls for projects and tenders in the sector. The Ministry grants the authorization following the CTER's notice. Since the end of 2018, this Ministry has been incorporated into the Ministry of Industry and SME. www.tunisieindustrie.gov.tn, www.energymines.gov.tn

The National Energy Management Agency (ANME) designs and promotes energy efficiency and renewable energy development programs. Its mission consists in implementing the energy management State policy, and thus, the promotion of energy efficiency, renewable energy and energy substitution. The ANME is in the charge of the Energy Transition Fund (FTE) subsidies grants for self-consumption projects. www.anme.nat.tn

The Tunisian Company of Electricity and Gas (STEG) is the historical electricity utility in Tunisia. Initially a vertically integrated monopoly, it is today a dominant energy producer, the unique purchaser of all power produced in Tunisia and has a monopoly on transmission, commercialization and distribution of electricity in Tunisia. It owns an installed capacity of 4 838 MW (2017), which represents 91.1% of the total installed capacity in Tunisia. www.steg.com.tn

The Technical Commission of private renewable power generation (CTER)'s mission is to provide an opinion on authorization projet requests, as well as on the extension and the withdrawal of the authorization, and to study all issues related to renewable energy development submitted by the Ministry, as well as on concession projects. The CTER is composed of representatives from several Ministries, the STEG and the ANME.

The Specialized Authority handles issues and claims relative to projects developed within the framework of law n°2015-12: the rejection or withdrawal of the Ministry approval and authorization, the disputes between the project company and the STEG regarding the execution or the interpretation of the power purchase contract. The Specialized Authority is led by a judge and is composed of representatives from the Government Presidency, from Ministries and electricity and renewable energy experts.

Composed of corresponding Ministries, **the CSPIE** adjudicates on the terms and conditions of the independent power generation concessionaire selection, and the different advantages to be granted. The CSPIE's decisions are based on the works and recommendations of the CIPIE.

3.3. THE PRIVATE SECTOR AND FINANCIAL INSTITUTIONS

Carthage Power Company is the sole and operational IPP dedicated to the sale of electricity to the STEG, in Tunisia to this day (Radès 2 gas turbine power plant) . However, the number of IPPs is expected to increase sharply in the coming years, depending on the progress of projects under the authorization and concession schemes.

Furthermore, in the field of renewable energy, the Tunisian private sector has been developing throughout the past years, essentially triggered by residential PV installations. Since the launch of the recent call for projects under the authorization scheme, Tunisian and international developers have also become present on the market.
Among the private sector representatives, there is **the Syndical Chamber of PV Integrators** (CSPV, *www.cspv.tn*), affiliated to the UTICA and established in November 2015 with around fifty members to this day.

Renewable energy financing is part of several Tunisian banks' strategies. Certain banks benefit from the support of international financing institutions through credit lines for renewable energy project financing (refer to section 5). Other banks also offer loans or other mechanisms for participating in projects (via SICARs – Venture Capital Investment Company - for equity contribution).

Tunisian banks are represented by the **Tunisian Professional Association of Banks and Financial Institutions** (APTBEF, www.apbt.org.tn) which holds 25 universal banks (public and private), 2 merchant banks, 8 leasing companies and 3 factoring companies.

The main Development Finance Institutions (KfW, EBRD, World Bank, AFD, ADB, etc.) are also present and active in Tunisia.

3.3. THE INVESMENT PROMOTION INSTITUTIONS

The Tunisia Investment Authority (TIA or ITI) is a public authority under the supervision of the Ministry of Investment. It intervenes on projects with an investment amount greater than or equal to 15 million Dinars and on so-called "projects of national interest". In this context, it deals in particular with the applications related to the financial and fiscal incentives provided by the Investment Law n ° 2016-71 and positions itself as the "sole interlocutor of the investor" through various steps: legal constitution of the companies, assistance in administrative procedures, coordination with other institutions, general advice and support, etc. Regarding RE projects above 15 million dinars and excluding the agricultural sector, the TIA will be the investor's main point of contact. www.tia.gov.tn

The Agency for Promotion of Industry and Innovation (APII) is a public authority under the supervision of the Ministry of Industry and SMEs. In addition to the promotion of industry and innovation, it intervenes on projects with an investment amount below 15 million Dinars (and excluding the agricultural sector). Within this framework and through its regional offices, it deals in particular with the applications related to the financial and fiscal incentives provided by the Investment Law n ° 2016-71 and positions itself as a single point of contact for the procedures linked to the investment declaration, the legal constitution of companies, etc. The APII will be the investor's main point of contact for RE projects below 15 million Dinars under the authorization regime and (excluding the agricultural sector) for the granting of benefits from the FTI for MV / HV self-consumption projects. www.tunisieindustrie.nat.tn

The Agency for the Promotion of Agricultural Investments (APIA) is a public authority with a mission to promote private investment in the fields of agriculture, fisheries and related services as well as in primary processing activities integrated into agricultural and fishing projects. Regarding RE projects, the APIA intervenes only at the level of the self-consumption projects carried out by the agricultural sector. It deals with the granting of the financial and fiscal incentives established by the Investment Law n ° 2016-71 and provides assistance to the promoters in the constitution of their investment files and supervision during the implementation phase of their projects. www.apia.com.tn

The Foreign Investment Promotion Agency (FIPA Tunisia) is a public entity under the supervision of the Ministry of Development, Investment and International Cooperation. It is responsible for providing the necessary support to foreign investors and promoting foreign investment in Tunisia. It positions itself as a source of information on investment opportunities in Tunisia, on contacts and can provide advice to foreign promoters in setting up investment projects. http://www.investintunisia.tn/Fr/notre-mission_11_203

RENEWABLE ENERGY PROJECT DEVELOPMENT PROCESS

04

1. On-site self-consumption
2. Off-site self-consumption - with power wheeling
3. Authorization Scheme
4. Concession Scheme

4.1. ON-SITE SELF-CONSUMPTION PROJECTS (MV/HV)

Any local authority and any public or private entity, connected to the national electricity grid in MV or HV and operating in the sectors of industry, agriculture or the tertiary sector can produce its own electricity via renewable energy sources. To carry out a project for self-consumption connected to the MV/HV grid, a request needs to be made to the Ministry in charge of Energy. The validity of the Ministerial approval is two (02) years for solar PV projects and three (03) years for wind projects. An extension of one (01) year is possible (on the basis of a justified request and after agreement of the CTER).

Self-consumption projects provide the possibility to consume one's own produced electricity instantly, thus saving money on electricity bills, and the possibility to sell the excess electricity generation to the STEG, which commits to purchasing the excess electricity as part of a contract between the two parties (up to 30% of the annual generation of the installation). This excess electricity purchase agreement is signed for a period of 20 years, and is automatically renewed for a period of one year, unless terminated by one of the parties.

The first possible configuration for a self-consumption project is a project without electricity transmission on the grid. In this case, the electricity generation site is also the consumption site. For solar PV, this may concern roof-mounted projects or ground-mounted projects for example.
The peculiarities of this configuration compared to the “power wheeling” case (remote generation site) are:

- There is no need to identify another site to accommodate the RE generation facilities since the generation site is itself a consumption site. It is therefore assumed for the on-site self-consumption configuration that there is no site selection step.
- The procedures for connecting the installation to the grid for the sale of excess power can be reduced, or even rendered non-necessary, if the consumption site already has sufficient connection infrastructure to the MV/HV grid.

Finally, some of the procedures listed in this section are provided for information purposes and their application must be evaluated on a case-by-case basis by the project holder, depending on the type of project (wind, roof-mounted PV, ground PV) and its size. This is particularly the case for the environmental impact study (EIA), the traffic permit, or the building permit.

The reader can find details about procedures, contracts and metering in the Detailed Guide.

4.1. ON-SITE SELF-CONSUMPTION PROJECTS (MV/HV)

The main steps of an on-site self-consumption project are described in the diagram below.

Feasibility | **Development** | **Construction** | **Operation**

I. Feasibility studies and preparation

1. Selection of an installation company
2. Pre-feasibility study
3. Preliminary connection to the MV / HV grid study
4. Environmental Impact Assessment (if applicable)
5. Feasibility study

II. Permits

1. Ministerial approval ★
2. Building permit (except for roof mounted projects)
3. Special traffic permit

III. Financing & Incentives

1-A. Contract - Program with the ANME (to benefit from the FTE incentives)
OR 1-B. Declaration of the investment transaction (to benefit from FTI subsidies)
2. Bank loan application
3-A Subsidies under the FTE OR 3-B. Subsidies under the Investment Law (FTI)

Note: Some steps are not required for all types of projects - more details are available in the Detailed Guide

IV. Grid connection & Commissioning

1 & 2. Studies to be carried out and technical data to be provided to the STEG for connection to the HV/MV grid (if project > 1MW)
3. Detailed HV/MV grid connection study
4. Connection to the HV/MV grid (if applicable)
5. Reception and commissioning by the STEG
6. Reception and validation of conformity by the ANME (only in the case of a program contract with the ANME)

★ **Condition for the realization of the project: Authorization by the CTER published in the JORT**

4.2. OFF-SITE SELF-CONSUMPTION PROJECTS (MV/HV) – WITH POWER WHEELING

The second possible configuration for a self-consumption project is a project with power wheeling (electricity transmission on the grid).

In this case, the electricity generation site is not located where the electricity is consumed. Indeed, it is necessary to have enough space to install all the necessary equipment for generation, and this may not be the case at the consumption site.

The terms and conditions of excess power pricing and the sale contract are similar to those of the on-site self-consumption. However, in the case of a project with electricity transmission, one must take into account that the transmission of energy from the generation site to the consumption site will be billed by the STEG for the use of the grid.

The peculiarities of this configuration compared to the “on-site” configuration are:
- It is necessary to identify a site to host the RE power generation facilities, which entails specific procedures and precautions. A site selection step is therefore required and is presented in the following page.
- The works and studies needed to connect the installation to the grid, for the sale of excess power to the STEG and the transmission to the consumption site, are potentially more significant, especially if the remote site is not already or sufficiently connected to the grid.

Some procedures listed in this section are for informational purposes only and their application should be evaluated on a case-by-case basis by the project holder, depending on the type of project (wind, roof-mounted PV, ground-mounted PV) and its size. This is particularly the case for the environmental impact assessment (EIA), the building permit or the traffic permit.

The reader can find details about procedures, contracts and metering in the Detailed Guide.

4.2. OFF-SITE SELF-CONSUMPTION PROJECTS (MV/HV) - WITH POWER WHEELING

The main steps of an off-site self-consumption project with power wheeling are described in the diagram below.

Feasibility

I. Site selection

1 to 3. Selection & preliminary site survey
4. Land survey and 7. permit or notices vis-à-vis different easements
5. Certificate of land vocation
6. Permit of temporary occupation of the State domain (tests and studies)

II. Feasibility studies and preparation

1. Pre-feasibility study
2. Preliminary connection to the MV/HV grid study
3. Environmental Impact Assessment (if applicable)
4. Feasibility study

Development

III. Permits

1. Ministerial Approval ★
2. Notice of installation on agricultural land
3. License to occupy the State domain (realization & operation)
4. Building permit
5. Special traffic permit

IV. Financing & Incentives

1-A. Contract - Program with ANME (to benefit from FTE incentives) OR 1-B. Declaration of the investment transaction (to benefit from FTI subsidies)
2. Bank loan application
3-A OR 3-B. Subsidies under FTE and FTI

V. Grid connection & Commissioning

1 & 2. Studies to be carried out and technical data to be provided to the STEG for the HV/MV connection (projects> 1MW)
3. Detailed HV/MV grid connection study
4. Connection to the HV/MV grid
5. Reception and commissioning by the STEG
6. Reception and validation of conformity by the ANME (only if program contract)

Construction

Operation

Note: Some steps are not required for all types of projects - more details are available in the Detailed Guide

★ **Condition for the realization of the project: Authorization by the CTER published in the JORT**

4.3. PROJECTS UNDER THE AUTHORIZATION SCHEME – TOTAL AND EXCLUSIVE SALE OF ELECTRICITY TO THE STEG TO MEET NATIONAL DEMAND

Any entity, any local and international investor and any independent producer wishing to develop a renewable energy project intended to satisfy the needs of the Tunisian consumption can present a request in order to obtain a preliminary Ministerial agreement *("accord de principe")* for the realization of their project, then sell the electricity to the STEG. This system is subject to an authorization issued by the Ministry of Energy on the notice of the technical commission, within the limit of a maximum installed capacity. The granting of authorizations comes in the form of a call for projects and in accordance with the annual notice issued by the Ministry of Energy specifying the national requirements for the generation of electricity from renewable energies.

The granting of a preliminary agreement by the Ministry allows the producer to establish a project company in the form of a resident company with limited responsibility (SARL) or a limited company (SA) subject to Tunisian law. The standard contracts (PPA) for the sale of electricity are published by Ministerial decree. Their duration is 20 years, extendable by a maximum of 5 years. The producer must apply for an extension at least 3 years before the end of the authorization.

In addition, as long as the generation unit benefiting from the preliminary Ministerial agreement is not commissioned, no new agreement for the same renewable energy source can be attributed to the same project holder. The validity of the preliminary agreement is two (02) years for solar PV projects and three (03) years for wind projects. An extension of one (01) year is possible (on the basis of a justified request and after agreement of the CTER).

The reader can find details of procedures, contracts and terms of the call for projects in the Detailed Guide.

Project	Max Capacity
Solar PV	10 MW
CSP	10 MW
Wind	30 MW
Biomass	15 MW
Other sources	5 MW

Decree n°2016-1123, Maximum capacity for projects under the authorizations scheme

4.3. PROJECTS UNDER THE AUTHORIZATION SCHEME – TOTAL AND EXCLUSIVE SALE OF ELECTRICITY TO THE STEG TO MEET NATIONAL DEMAND

The main steps of a project under the authorizations scheme are described in the diagram below.

Feasibility

I. Site selection

1 to 3. Selection & preliminary site survey
4. Land survey and 7. permit or notices vis-à-vis different easements
5. Certificate of land vocation
6. Permit of temporary occupation of the State domain (tests and studies)

II. Feasibility studies and preparation

1. Pre-feasibility study
2. Preliminary connection to the MV/HV grid study
3. Environmental Impact Assessment (if applicable)
4. Feasibility study

Development

III. Permits

1. Preliminary Ministerial agreement ★
2. Notice of installation on agricultural land
3. License to occupy the State domain (realization & operation)
4. Building permit
5. Special traffic permit

IV. Financing & Incentives

1. Declaration of the investment transaction
2. Establishment of an SPV
3. Bank loan application
4. Subsidies under the Investment Law (FTI)

Construction

V. Grid connection & Commissioning

1 & 2. Studies to be carried out and technical data to be provided to the STEG for the HV/MV connection
3. Detailed HV/MV grid connection study
4. Connection to the HV/MV grid
5. Reception and commissioning by the STEG

Operation

VI. Operation

1. Operation Authorization

Note: Some steps are not required for all types of projects - more details are available in the Detailed Guide

★ **Condition for the realization of the project: Authorization by the CTER published in the JORT**

PPA effective date

4.4. PROJECTS UNDER THE CONCESSION SCHEME - TOTAL AND EXCLUSIVE SALE OF ELECTRICITY TO THE STEG TO MEET NATIONAL DEMAND

Projects with a maximum capacity exceeding the limit set by decree (10 MW for PV, 30 MW for wind) for the Authorization Scheme, fall under the concession framework, which main lines of implementation are described in the April 1st 1996 law n°1996-27 and its decree of application n°1996-1125. This framework provides that projects shall be subject to a public tender procedure by the State and that the various conventions relating to the grant of each project need to be approved by a special committee at the People's Assembly (ARP).

The prequalification procedure is followed by a restricted tendering procedure. The sponsor selected at the end of this procedure must establish a Project Company, who will design, finance, build, own, operate and maintain the Project throughout the period of the **Concession Agreement**, which is concluded between the Ministry in charge of Energy and the Project Company. The energy produced will be sold to the STEG as part of a **Power Purchase Agreement** (PPA) concluded between the two parties for a period equal to that of the concession (20 years, extendable for a period of 5 years, with the agreement of the parties). Concerning sites on State domain, an **Agreement of Land Occupation** must also be signed between the Project Company and the public entity to whom the site belongs.

Given that no renewable energy project has yet been awarded under this scheme, the information and procedures described in this section are based on the prequalification bids issued in May 2018, and the common law procedures applicable to projects under authorizations, which remain valid unless otherwise stated in the concession agreements.

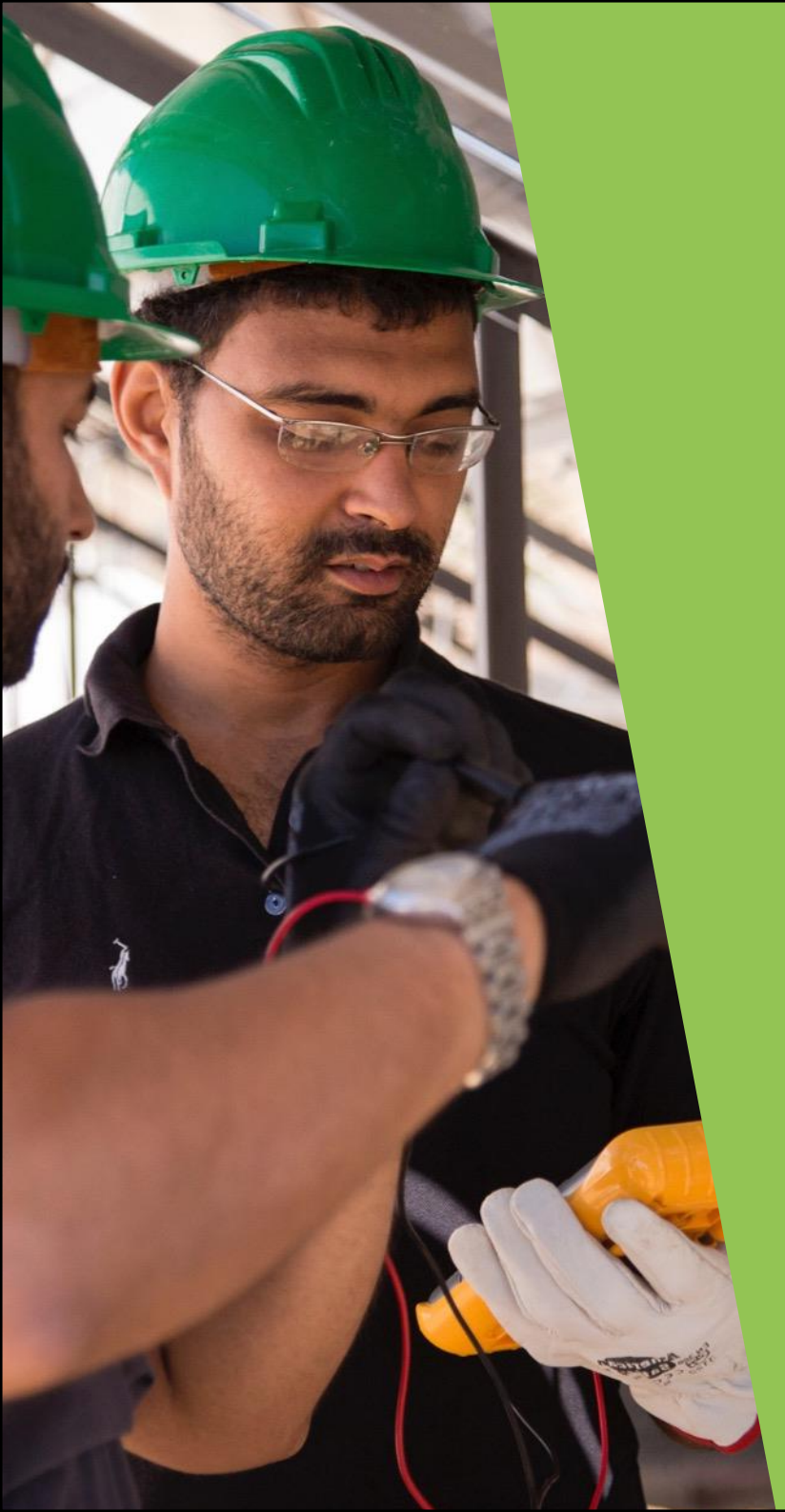
The reader can find details about the procedures and permits in the Detailed Guide.

The reader's attention is drawn to the fact that the final versions of the project agreements or tender specifications may lead to additional obligations or, on the opposite, grant certain specific exemptions or benefits, and that the sequencing or the completeness of the procedures will have to be assessed by the project sponsor according to the situation (technology, site proposed by the State or by the project sponsor), if necessary by consulting with the public authorities involved.

4.4. PROJECTS UNDER THE CONCESSION SCHEME - TOTAL AND EXCLUSIVE SALE OF ELECTRICITY TO THE STEG TO MEET NATIONAL DEMAND

The table below summarizes the different stages of the call for tenders and the implementation of the projects under this scheme.

Selection of the Sponsor	• Prequalification call for tender based on technical and financial references • Implementation of a restricted call for tenders with pre-qualified candidates and submission of an offer by each candidate and for each site • Evaluation and selection of the best offer based on the proposed price and technical and financial requirements
Finalization of Project Agreements	• Finalization and signature by the selected sponsor of the Concession Agreement, the Power Purchase Agreement, the Land Use Agreement (if the site is on the State domain) and any other contract necessary to the successful completion and operation of the project (Direct Agreements with Lenders, etc.) • Enforcement of the various conventions after approval by the Assembly of People's Representatives and promulgation of the JORT approval law
Establishment of a Project Company and financial closing	• Creation by the sponsor of a company under Tunisian law, whose object will be the generation of electricity • Novation (transfer) of the different Project Agreements for the benefit of the Project Company • Organization of the financing by the project sponsor, realization and financial closing
Realization and operation of the project	• Finalization of the studies, construction and commissioning of the project by the project company and its subcontractors, according to a schedule specific to each project • Operation of the plant for the duration of the concession (20 years, renewable 5 years after agreement of the parties) • Sale of energy to STEG for the duration of the concession



INVESTMENT ENVIRONMENT AND INCENTIVE FRAMEWORK

05

1. Country profile
2. Financing facilities
3. Financial & fiscal incentives
4. Examples of financing schemes

5.1.1. BUSINESS CLIMATE

The "Doing business" ranking of Tunisia

In 2019, Tunisia ranks 80th in the World Bank's "Doing Business" ranking, achieving 5th in the North Africa and Middle East region. It is preceded in this ranking by the United Arab Emirates (11th), Morocco (60th), Bahrain (62nd) and Oman (78th).

It gains eight spots in this ranking compared to the previous ranking thanks to a series of reforms including the creation of a one-stop shop for registration procedures, the improvement of land procedures through greater transparency and the introduction of measures to strengthen the protection of minority investors.

The "RISE" ranking of Tunisia

In 2017, Tunisia ranked 21st in the World Bank's ranking of public policies in the field of sustainable energy (RISE). It gained 44 spots compared to the 2016 ranking, and therefore joined the group of high-yield countries. Tunisia is one of the only African and Middle Eastern countries in high-yield energy efficiency countries.

Law on Investment Incentives and Improvement of the Business Climate

The Law on Investment Climate Improvement is a cross-sectional law adopted by the People's Assembly (APR) on April 23, 2019, which aims to fill legal gaps and simplify procedures to mitigate administrative barriers in the mobilization of private investment in Tunisia. To fit this purpose, this law has made important changes to some fifteen existing laws, including among others the law n ° 2015-12 related to the production of electricity from renewable energies (especially concerning the self-consumption scheme). In addition, this law reinforces the role of the ITI / TIA regarding permits and authorizations issuance for projects above 15 million Dinars, including on land right aspects.

5.1.2. THE LEGAL ENVIRONMENT

SPV creation

The 2017-389 decree on financial incentives for investments made under the Investment Law provides for the constitution of the project company.

In the context of renewable power generation project development under authorizations or concessions, the project developer needs to establish a special purpose vehicle (SPV) in the form of a resident company with limited responsibility (SARL) or a limited company (SA) subject to Tunisian law, in accordance with the regulations on the incorporation of companies.
Its activity must be limited to the generation of electricity from renewable energy sources and its total and exclusive sale to the STEG. The Sole Interlocutor ("*Interlocuteur Unique*") of the Investor is in charge of carrying out all the procedures and formalities required for the legal constitution of the project company with the various ministries and institutions intervening for the project sponsor. Depending on the projet's investment cost, the contact point will be the TIA* or the APII. The procedure for creating a SPV can be found in the **Detailed Guide**.

Foreign exchange regulation

Exchange and foreign trade regulations are based on the Exchange Code, as enacted by Law n° 76-18 of January 21st 1976, Law n° 94-41 of March 7th 1994 on foreign trade and their texts. General principles of the law:

- The freedom of transfer in the context of current transactions, actual net proceeds, and capital gains from the sale or liquidation of capital previously invested through the importation of foreign currency. All other transactions and commitments that result or may result in a transfer as well as any compensation between foreign debts are subject to prior authorization.

- Expatriation of funds have to be made through the Central Bank of Tunisia (BCT) or, on delegation of the latter, by intermediaries approved by the Ministry of Finance on the proposal of the Governor of the BCT. Note that the project sponsor must take into consideration the fact that processing times and justifications of the BCT can be requested when transferring currency to or from Tunisia.

Source : Central Bank of Tunisia (https://www.bct.gov.tn/bct/siteprod/page.jsp?id=67)
*Tunisia Investment Authority website: https://www.tia.gov.tn/news-details/avis

5.2.1. GUARANTEE FUNDS

The Tunisian Guarantee Company (SOTUGAR) is a guarantee fund with a mixed public-private ownership structure: 37% of the shares are held by the Ministry of Finance while the remaining shares are distributed among the 19 national banks. The main objective of the fund is to support SMEs by promoting access to debt financing through the implementation of guarantees.

- **The SME Guarantee Fund (main fund, resources** of 122.3 million Tunisian Dinars – MTD - in 2017*):
  - This fund is not accessible to SMEs in the renewable energy sector because it is dedicated to SMEs in the manufacturing, service sector and innovative industries in the IT sector **.

- **The SME Guarantee Fund II** (allocated budget of 15 MTD *):
  - SMEs in the renewable energy sector are eligible for this fund even if it is not specifically dedicated to it.
  - This fund is intended to guarantee short, medium and long-term loans granted by banks or leasing companies and equity investments granted by Venture Capital Investment Companies (SICAR).
  - Access to the fund is provided on the condition that the investment cost does not exceed 10 MTD for both creation and extension projects (including working capital or net fixed assets depending on the case).

5.2.2. PILOT LEASING SCHEME FOR FINANCING PV PROJECTS

To counter the difficulties of committing 30% of equity (level usually required) to finance a PV installation, financing by leasing could be a solution. While some PV installations have already been financed through this model in Tunisia, there is an appetite for leasing companies to spread this type of financing. Preconditions are however necessary (establishment of guarantee funds, international and dedicated refinancing lines, establishment of a secondary market for PV equipment already used).
The current conditions are quite favorable to launch a pilot leasing scheme for the financing of PV projects for self-consumption and professional use. To date, this scheme is not yet in place, but actions are underway at various levels (GIZ, international donors, ANME) to accelerate its implementation***.

** 2017 SOTUGAR Annual Report*
**** "Modes of Financing Solar Energy Projects in Tunisia" & "Guarantees and Refinancing in the Framework of Financing Photovoltaic Projects by Leasing in Tunisia"*

5.2.3. CREDIT LINES GRANTED TO TUNISIAN BANKS BY CERTAIN DEVELOPMENT INSTITUTIONS

The SUNREF credit line granted by the AFD to three major Tunisian banks (UBCI, UIB and Amen Bank)

Between 2017 and 2018, the French Development Agency (AFD) has made available to some Tunisian banks significant resources via the SUNREF credit line dedicated to the green economy. This total resource of 40 million euro will allow banks to offer incentive conditions for financing (in terms of duration, rate and investment premium) of projects participating in the energy transition. It should be noted that other banks are negotiating to join the SUNREF credit line (notably the Banque de l'Habitat). Furthermore, SUNREF can also provide subsidies up to 20% of the loan value.

The eligibility criteria and loan conditions for RE investments are as follows:

Conditions of eligibility of the project	Loan conditions
• Installed capacity up to 10MW • Compliance with the AFD social & environment management principles • Respect of the enforced Tunisian environmental and social standards (E & S)	• Value of the loan ≤ 2 million euro • Loan duration > 5 years (up to 12 years) of which 2 years correspond to a grace period

The credit line granted by IFC to Attijari Bank Tunisia

The International Finance Corporation (IFC), a subsidiary of the World Bank, has lent 40 million euro to Attijari Bank Tunisia. The loan agreement was concluded in October 2018. This loan will be used to finance and support small and medium-sized enterprises (SMEs) in the renewable energy sector.

Other credit lines available to renewable energy projects

- FADES line (1.5 million dinar) and QFF line (1.25 million dinar) for the BFPME bank - maturity up to 10 years
- GGF (Green for Growth Fund) line for Tunisia Leasing & Factoring (TLF) - 10 million euro
- *In negociation : Line from European Investment Bank (BEI - 150 million euro on various sectors) to BNA bank*

5.3.1. THE TUNISIAN INVESTMENT FUND (1/2)

The Tunisian Investment Fund (FTI) is created by the law n°2016-71 of September 30th 2016, also called Investment Law bearing the law of the investment. The resources of the Fund consist of State resources, loans and grants from within and from abroad and all other resources available. Its interventions consist in the granting of subsidies for the execution of direct investment operations in key sectors (including RE) and equity contributions.

According to the Ministry of Finance (October 2018), the FTI and the FTE aid for RE projects **cannot be combined**. The terms and conditions for obtaining the FTI subsidies, as well as other possible premium accumulation rules, are detailed in the **Detailed Guide**. Procedures, from the investment declaration until subsidy or contribution award are to be dealt with :

- The Tunisia Investment Agency (TIA / ITI) for projects which investment costs are above or equal to 15 million Dinars
- The Agency for Promotion of Industry and Innovation (APII) for RE projects for projects below 15 million Dinars (and not from the agricultural sector), or The Agency for the Promotion of Agricultural Investment for RE projects related to the agricultural sector.

➢ **FTI subsidies for the execution of direct investment operations** *(Decree 2017-389, Art. 3)*

	Remuneration and conditions**	Limit (Dinars)
Premium related to increased added value and competitiveness	15% of the investment cost	1 million dinar
Regional development premium (depends on regional development zone)	"1st group" zones: 15% of the investment cost "2nd group" zones: 30% of the investment cost	"1st group" zones: 1.5 million dinar "2nd group" zones: 3 million dinar
Employability capacity development premium (depends on regional development zone)	Covering (for 3 to 10 years) by the State of the employer's social charges State coverage (for 1 to 3 years) of a part (50%) of the employees wages	No limit 250 dinar/ monthly salary
Sustainable development premium	50% of the value of the approved investment components	300,000 dinar

Note : the granting of the FTI aids to PV and wind projects remains, however, to be confirmed according to the terms set out in the concession agreement specific to each project.

*** See further information in Detailed Guide*

5.3.1. THE TUNISIAN INVESTMENT FUND (2/2)

➢ **Equity contribution by the FTI** (*Decree 2017-389, Title VI, Chapter I*)

Project cost	FTI contribution	Conditions*
≤ 2 Mio. Dinars*	• Maximum 60 % of capital • Cap = 2 MTD*	• Minimum amount of personal capital contribution (at least 10 or 20% depending on project cost) • Minimum amount of capital contribution by a SICAR or a risk-free mutual fund (at least 10 or 20% depending on project cost) • Conditions for pay-back
> 2 Moi. Dinars*	• Maximum 30 % of capital • Cap = 2 MTD*	

5.3.2. FACILITIES FOR "PROJECTS OF NATIONAL INTEREST" *(Law 2016-71, Art. 20 & Decree 2017-389, Title V)*

Definition of a "Project of National Interest":
- Project investment cost greater than 50 million dinar
- Or, creating at least 500 jobs for a period of three years from the activity effective start date

The character of "national interest" must also be validated by the Superior Council of Investment.

FTI funded incentive schemes:

The project benefits from:
- A deduction of profits from the corporate tax base within the limit of ten years.
- An investment premium in the limit of one third of the investment cost including the expenses of intramural infrastructure works with a cap of 30 million dinar.
- State participation in the expenses for infrastructure works.

The premium rate to be granted to these projects is estimated on the basis of the volume of the planned investment or its employability capacity and its ability to achieve at least one of the objectives set out in Article 1 of Investment Law . These incentives are granted for each project of national interest by virtue of a government decree in accordance with the opinion of the Superior Investment Council and on the proposal of the commission created for the TIA.

** See further information in Detailed Guide*

5.3.3. THE ENERGY TRANSITION FUND (FTE)

The Energy Transition Fund (FTE) is governed by Decree 2017-983 of July 26th, 2017. Its funds amount to 100 million Tunisian dinar*. The FTE is primarily intended for commercial companies that have the objective of investing to reduce their energy bill. For example, non-profit projects for the generation of electricity from renewable energies under self-consumption are among the potential beneficiaries of the fund.

Loan:
The FTE can lend up to 50% of actual costs for RE self-consumption projects but never positions itself as a single lender. It also requires a minimum capital contribution of 40% of the investment (including subsidy and participation) in case of facility creation, or 30% if it is an extension.
Note: this mechanism provided for in the FTE operating decree is not yet operational at this date.

Subsidies:

- For self-consumption projects with an installed capacity greater than 1.5 kW: premium of 1,200 dinar / kW installed (cap of 3,000 dinar for residential projects and 5,000 dinar otherwise)
- For rural electrification and pumping installations with an installed capacity of more than 10 kW: premium of 1,000 dinar / kW installed (cap of 50,000 dinar).
- For other projects: grant of 20% of the investment (cap of 200,000 dinar).
- The FTE also supports intangible investments by awarding a premium for feasibility studies related to self-consumption projects. This premium is 70% of the investment (cap of 30,000 dinar).

The terms and conditions for obtaining the ANME grants are detailed in **the Detailed Guide**.

Note: Aids in the form of an increase in commercial credits and financing are also planned, but not yet operational at this date.

** Ministry of Finance, October 2018.*

5.3.4. INCENTIVES FOR THE IMPORT OF COMPONENTS IN THE FIELD OF RE

Raw materials, semi-finished products and equipment used in the field of RE ("RE Components" in the following) benefit from tax advantages when they are purchased on the local market or when they are imported. These advantages consist of:

- The application of minimum Customs duties and VAT rates for "RE Components" that do not have similar products manufactured locally:
- The application of the minimum VAT rate for locally made "RE Components".

VAT: according to table "B" annexed to the 2017 Value Added Tax Code, the "RE Components" mentioned above benefit from a VAT reduced to 6% (compared to a rate of 18% for common law). This rate is subject to change by the Finance Act each year.

Customs duties: according to paragraph 7.21 of Chapter 2 of the Preliminary Provisions of the Customs' Import Duty Tariff (Law 89-113), the imported "RE Components" mentioned above that do not have locally made similar products benefit from a tariff reduction at a rate of 10%. This rate is subject to change by the Finance Act each year.

The detailed list of equipment eligible for these benefits is annexed to the Government Decree No. 2018-234 of March 12th 2018 amending and supplementing the Government Decree No. 2017-191 of January 25th 2017. A summary table of the main components of solar PV and wind energy sectors benefiting from these incentives, as well as the associated procedures, are presented in the **Detailed Guide**.

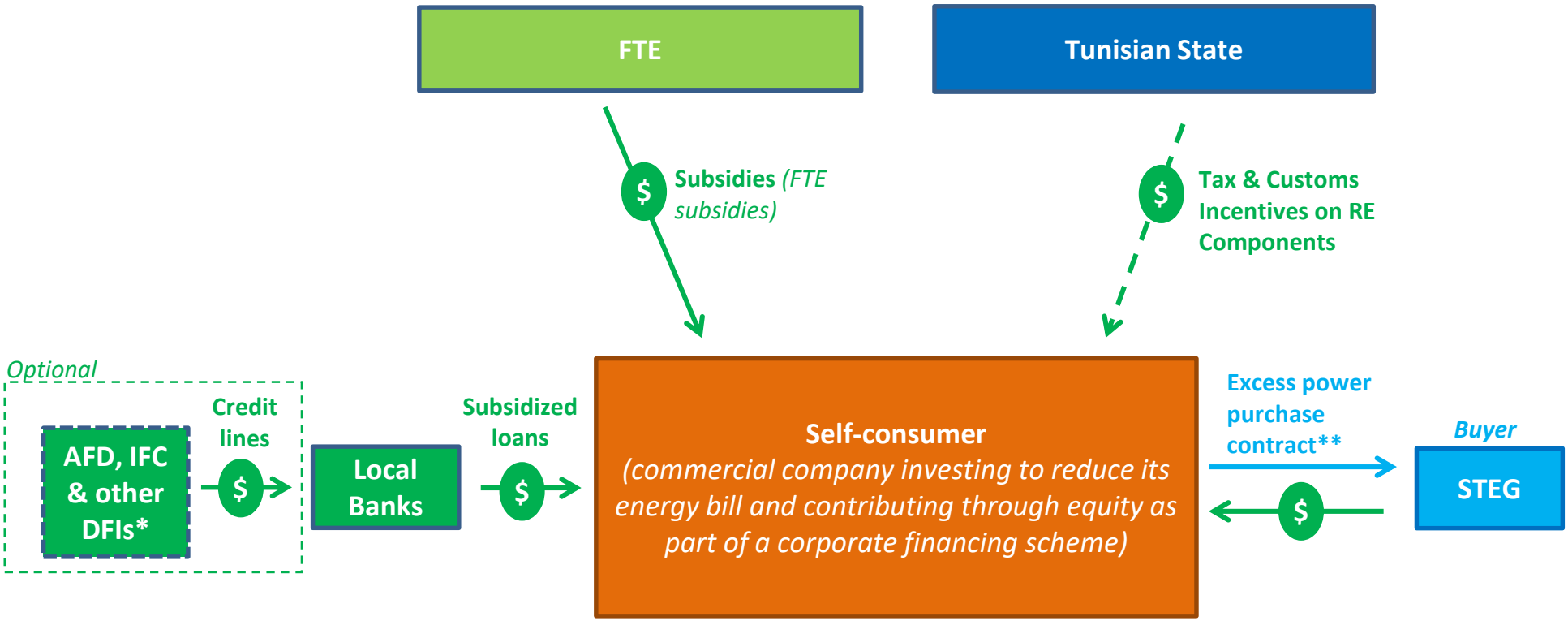
5.3.5. CORPORATE TAX

There are no specific corporate tax provisions for RE projects. However, the general schemes provides that:

- According to the Finance Act for the year 2019, the corporate tax is set at 25%, but it is reduced to 20% if the turnover of the company is less than 1 million dinar. In addition, companies created and having obtained a declaration of investment certificate from the services concerned in the years 2018, 2019 and 2020, benefit from a 4 years exemption on corporate tax from the date of start of effective activity.
- Whatever the turnover of the company, the corporate tax is reduced to 10% in the regional development zones mentioned above (zones 1 and 2). In addition, a tax exemption of 5 (zone 2) to 10 years (zone 1) is also granted (which can be cumulated with the 4 year exemption mentioned in the previous paragraph).
- Depending on the project's eligibility, it may fall under the tax regime applied to projects of national interest.

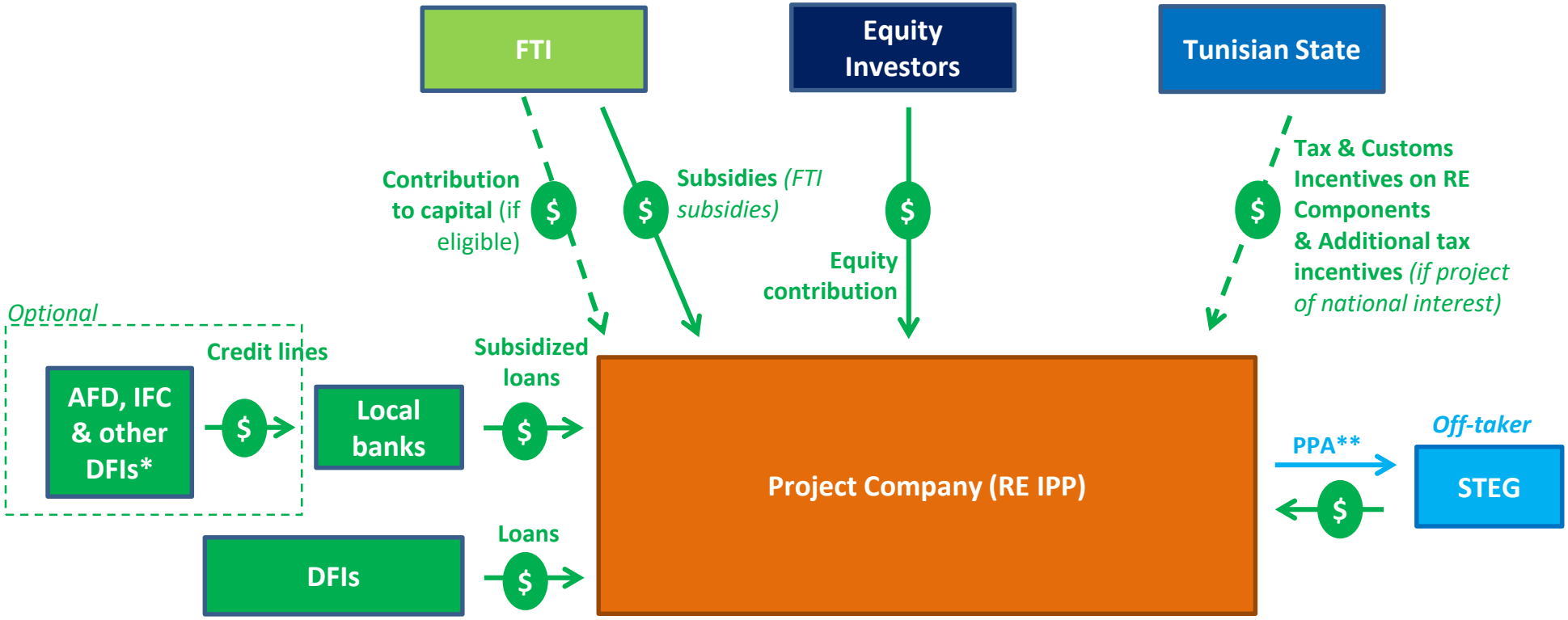
5.4. Examples of financing schemes

5.4.1. SCHEME FOR FINANCING SELF-CONSUMPTION PROJECTS DEVELOPED BY A COMMERCIAL COMPANY INVESTING TO REDUCE ITS ENERGY BILL



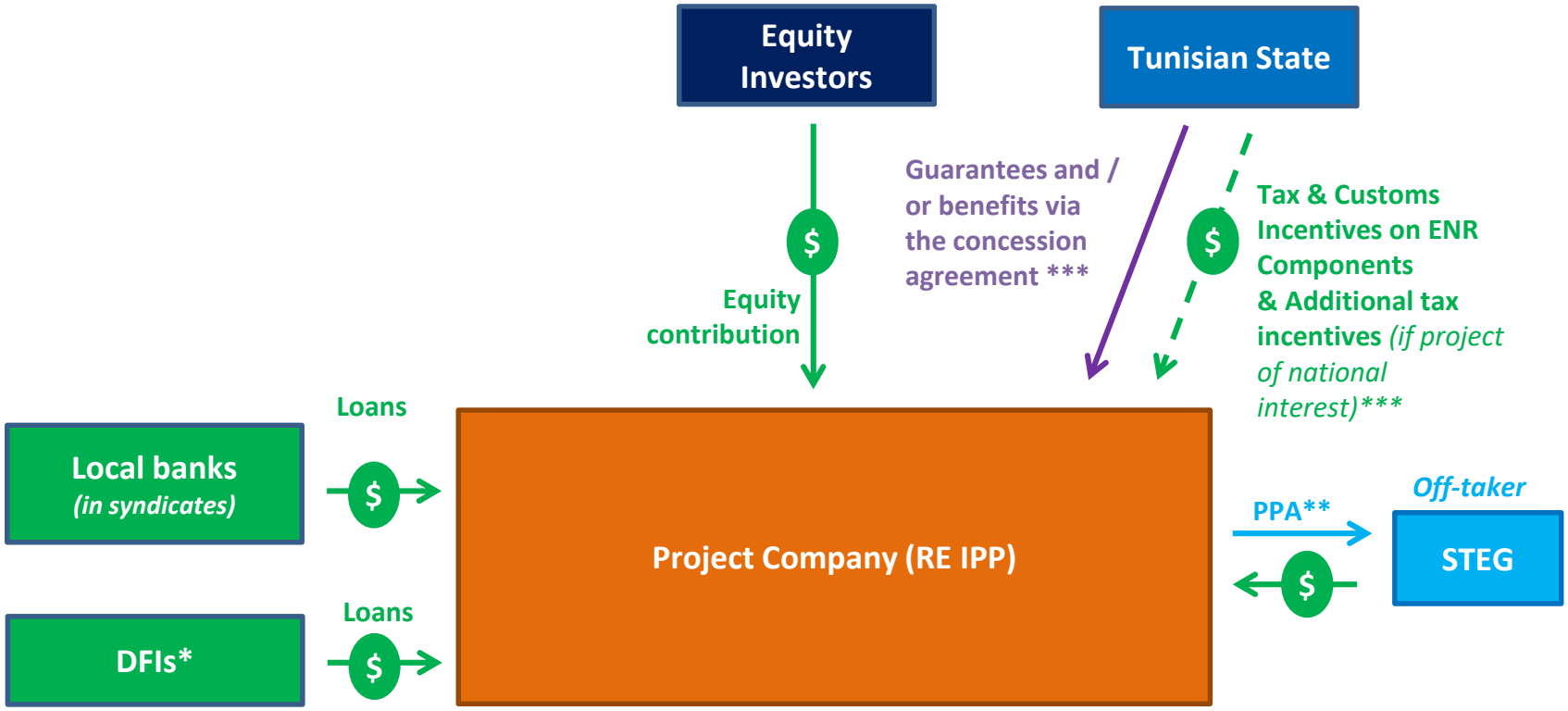
* DFI = Development Finance Institution
**Contract for the transmission of electrical energy produced from the renewable energy installations connected to the high and medium voltage grid and the purchase of excess electricity by the STEG

5.4.2.1. SCHEME FOR FINANCING INDEPENDENT RENEWABLE ENERGY PRODUCERS (IPP) PROJECTS UNDER THE AUTHORIZATION SCHEME



* DFI = Development Finance Institution
**Power Purchase Agreement - Contract for the sale to the STEG of electric energy produced from renewable energies subject to an authorization

5.4.2.2. SCHEME FOR FINANCING INDEPENDENT RENEWABLE ENERGY PRODUCERS (IPP) PROJECTS UNDER THE CONCESSION SCHEME



* DFI= Development Finance Institution
**Power Purchase Agreement – Contract for the sale of electricity to STEG specific to the concessions scheme
*** According to the specific contents of each concession agreement

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On behalf of
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Federal Ministry
for Economic Cooperation
and Development

Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety

of the Federal Republic of Germany