

# Renewable Energy in Tunisia

A brief look at recent developments and an ambitious energy action plan in light of May's call for projects

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## Historical and Political Context

Since the early 2000's, the country has made considerable efforts to bolster its renewables program.



The history of regulatory framework for the renewables sector in Tunisia dates to the creation of the country's national electric company, La Société Tunisienne de l'Electricité et du Gaz (STEG), by decree law in 1962, and later to the creation of L'Agence Nationale pour la Maîtrise de l'Energie (ANME) in 1985.

The Agency, now a public entity under the supervision of the Ministry of Industry responsible for energy policy management and the promotion of renewable energy sources, saw its specific mission, organization, and functions modified by laws n°2000-1124 and n°2004-795 in May 2000 and March 2004 respectively. The latter followed on the heels of the country's first true energy efficiency law, n°2004-72 of August 2004. Echoing national emphasis on environmental concerns following Tunisia's ratification of the Kyoto Protocol in the year prior, this law declared the development of renewable energy sources a national priority and authorized certain bodies to sell electricity produced through co-generation to STEG<sup>1</sup>.

This significantly weakened STEG's monopoly on production in the country, a process that formally began with law n°1996-27 nearly eight years earlier. The protocols for production framework were later amended by law n°2009-7 in February 2009, which expanded the range of producers eligible for authorization and specified the mechanism by which STEG would purchase from said producers.

## Key Developments



1996

Law No. 1996-27 ends STEG monopoly on electricity production

Decree No. 1996-1125 establishes framework for IPP's

2004

Law No. 2004-72 initiates Promotion Program on Renewable Energy, lays co-gen framework

2005

Law No. 2005-82 creates Energy Efficiency Fund, framework for Clean Development Mechanisms

2009

Law No. 2009-7 amends 2004-72, expands framework for production and resell to STEG, outlines PPA, sets fines for non-compliance

During the early 2000's, Tunisia began to demonstrate its commitment to combatting climate change and promoting clean energy by launching a number of national energy projects and committing itself to landmark international agreements. After ratifying the United Nations Framework Convention on Climate Change (UNFCCC) in July 1993 and the Kyoto Protocol in January 2003, Tunisia adopted in 2005 a project development strategy in line with the latter agreement's Clean Development Mechanism (CDM)<sup>2</sup>. In coordination with the United Nations Environment Program, STEG and ANME launched the PROSOL residential solar water heater incentive program that same year<sup>3</sup>. The implementation of the Tunisian Solar Plan in 2009, the third of four (to date) renewable energy action plans dating back to 2005, laid out new renewable capacity targets for the period 2010-2016 in light of the newly adopted amendment to the law on energy conservation (n°2009-7). These targets included a total production capacity from renewables of 4700 MW by 2030, including 1000 MW by 2016. The announcement of the Renewable Energy Action Plan 2030 in November 2016 later modified these targets (see "Current State of Regulatory Infrastructure").

Considered to be perhaps the most important contributor to the future of Tunisia's electricity production from renewable sources, wind projects have also been present in the country since the early 2000's. STEG began its three-stage production of the 54MW Sidi Daoud wind farm in 2000 and completed the project in 2009. Three years later, the 190 MW<sup>4</sup> Bizerte wind farm came online.

## Regulatory Framework

Substantive framework for regulating the production of electricity from renewable sources was outlined by renewable energy law n°2015-12 in May 2015, effectively bringing to life the country's longstanding commitment to clean production. Later detailed and completed by decree n°2016-1123 in August 2016, this new framework was soon followed by the Ministry of Energy, Mines, and Renewables' announcement of the Renewable Energy Action Plan 2030 in November 2016. The Plan established a national target of 30% of total energy production from renewables, including installations of 1000 MW total capacity during the first period 2017-2020 and an additional 1250 MW during the period 2021-2030. The projects are to be developed under four different "régimes" outlined<sup>5</sup> by the 2015 law and 2016 decree:

- o Large-scale projects, subject to concession (tender process);
- o Small-scale projects, subject to authorization;
- o Self-production projects, subject to authorization; and
- o Export projects, subject to concession

The capacity thresholds to distinguish between large and small-scale projects are 10 MW for solar photovoltaic and thermodynamic solar energy and 30 MW for wind energy.

The following table outlines the breakdown of planned installed capacity during the period 2017-2020 by energy source and production regime:

Table 1: Production Capacity 2017-2020 (MW)

	Concession	Authorization	STEG	Auto-Consumption
Solar	100	120	300	130
Wind	100	90	80	80

## Key Developments

**2015** Law No. 2015-12 establishes framework for electricity production from renewables

**2016** Decree No. 2016-1123 completes 2015-12, sets terms of sale to STEG  
  
Ministry of Energy, Mines, and Renewables announces RE Action Plan 2030

**2017** Ministry releases technical docs and PPAs in February, call for projects for 210 MW in May

On February 9, 2017, the Ministry published application texts for projects, including PPAs for the sale of renewable energy to STEG, transmission contracts, and grid connection codes. In May 2017, the Ministry proceeded to officially launch the first phase of the 2030 plan by releasing a call for projects for the development of 210 MW from both solar (PV) and wind.

This call for projects was published alongside a Manuel de Procédures that describes the technical information to be submitted with project proposals, the bidding and selection process, and additional regulatory information. As outlined in this document, the projects for this first phase of the 2030 plan will fall under the "authorization" regime (régime des autorisations) and are to be built under a Build, Own, Operate (BOO) scheme<sup>6</sup>. All produced electricity will be sold exclusively to STEG under the terms of a PPA specific to the authorization regime. A breakdown of project capacity limits and application deadlines can be found in the following table:

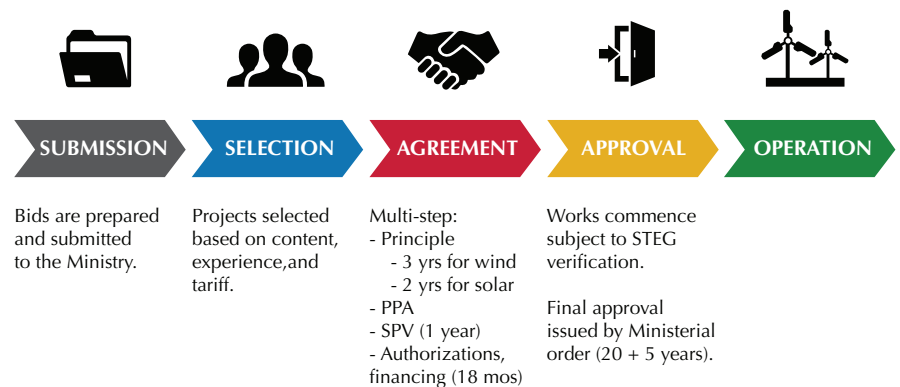
Table 2: 2030 Action Plan Phase 1 - Authorization Regime Project Capacity (MW)

Source	Total Capacity	Individual Capacity	Deadline
Wind	60	30	15 November 2017
	10	5	
	60	30	15 August 2018
Solar	10	5	15 November 2017
	60	10	
	10	1	

Source: Call for Projects, Ministry of Energy, Mines, and Renewables<sup>7</sup>

## Project Approval Process

The process for receiving approval from the Ministry of Energy, Mines, and Renewables is as follows<sup>8</sup>:



Please note that while this information accurately summarizes the timeline set out by decree n°2016-1123 of August 2016, its practical accuracy cannot be confirmed at this time. The call for projects announced in May marks the first attempt at developing projects under the new regulatory framework, and thus it is too early to confirm whether the schedule is realistic.

# Key Contractual Terms and Selection Process

The primary components of the project proposal and selection process as outlined in the Manuel de Procédures, as well as the key contractual terms of the PPA, are as follows:

**STEG vs. STEG ER:** Project developers should be aware of the distinction between these two entities, namely:

- o STEG is a Tunisian public company tasked with the production and distribution of electricity and natural gas within Tunisia. STEG is the sole purchaser of renewable energy production intended for the local Tunisian market.

- o STEG ER is a private Tunisian company in which STEG is a shareholder alongside certain banks and research organizations. STEG ER may offer its services to the State and private investors alike, though private investors are not obliged to refer to the company. As a private research and consultancy company, STEG ER focuses primarily on:

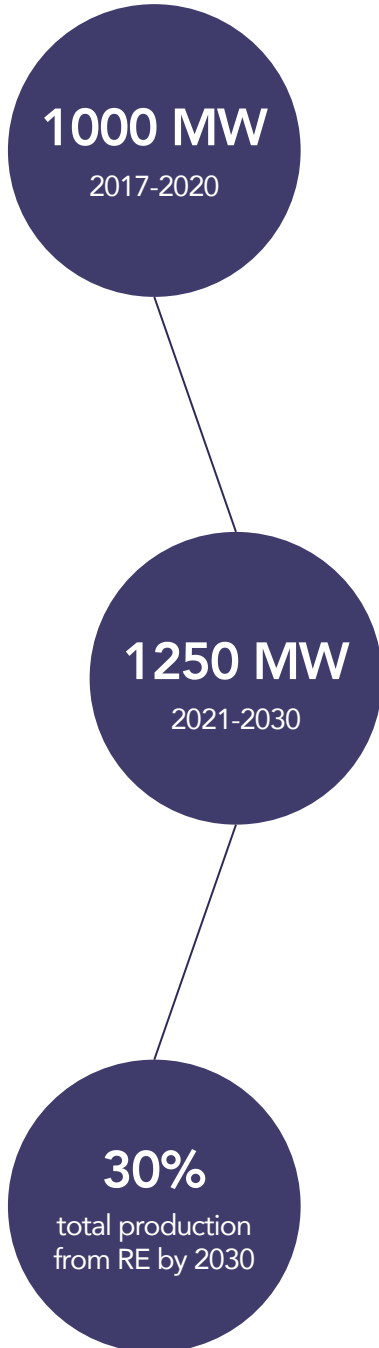
- Providing services, research, and consulting related to RE;
- Identifying project sites and conducting feasibility studies;
- Developing public-private partnerships;
- Studies of wind, solar, and other energy potentials;
- Impact studies;
- Study and supervision of project development and completion;
- Operation and maintenance of renewable energy production plants on behalf of third parties

**POWER PURCHASE AGREEMENT:** The key terms of the PPA include:

- o Contract term: initial term of the contract is 20 years with a take or pay mechanism;
- o Tariffs determined individually based on offers made by IPP's (see below).
- o Grid Connection and management conditions are not specified but should be clarified at a later date;
- o Connection Costs are the developer's responsibility, including initial connection and reinforcement costs;
- o Quality of electricity produced is outlined in the Cahier des exigences techniques de raccordement et d'évacuation de l'énergie produite à partir des installations d'énergies renouvelables raccordées sur le réseau haute et moyenne tension, published on the Ministry's site; and
- o Transfers in capital are allowed subject to approval by the Ministry of Energy

Please note that the terms of the PPA are not subject to case-by-case adjustment or modification. We understand that any potential changes to the PPA for all investors and projects would be announced by the Ministry of Energy and effected by a new decree.

**LANGUAGE OF REQUIRED DOCUMENTS:** All documents required to be submitted with project proposals must be in French, though technical annexes such as balance sheets may be submitted in English.



**PROJECT SITE:** Please note that the Tunisian government will not provide project sites to sponsors. As specified by the Manuel de Procédures, sponsors are obliged to propose a location based on its energy potential and to establish the availability of the site for purchase or lease by providing an agreement or ownership title. Thus, private developers must either rent or purchase the land.

Site proposals may then be approved or rejected by STEG, who must prepare a preliminary study of the connection of the production unit to the national electric grid. This study must be included with the authorization request. Neither the 2015 law nor the 2016 decree expressly stipulates that this study must be entrusted to STEG. However, we understand that this is a requirement and that relevant information will be explicitly mentioned as part of a manuel de procédures de raccordement currently being developed and intended to be published on STEG's website.

On an exceptional basis, authorization may be granted for the use of land owned by the State or by local collectives. Land use and occupation will be treated in these circumstances as a concession for temporary occupation, as regulated by law n°2008-23 on the concessions regime (régime des concessions). In this case and for the duration of temporary occupation, project sponsors would enjoy the rights and obligations of full ownership of any constructions erected on the land, while the land itself would remain under State ownership. These rights are mentioned in a special registrar held by the relevant services of the Ministry of State-owned Property and Land Affairs.

**TECHNICAL AND FINANCING DOCUMENTS:** Sponsors must submit technical and financial information along with their proposals, including:

- o A detailed technical study of the project, indicating specifically the energy source, the project capacity, equipment specifications, and an implementation plan for the project;
- o The investment and financing scheme, including term sheets agreed upon by lenders and backing parties;
- o An analysis of local industrial integration indicating the rate of integration relative to global investment (excluding land costs), and supporting documents;
- o The number of employment positions created during construction and operation phases; and
- o A preliminary environmental study

**TARIFF:** Sponsors must propose a two-part tariff, including one fixed portion for the first 12 operational years and a fixed portion for the following 8 years. Proposed tariffs must include currency differences and will be adjusted according to a formula published by the Ministry.

**BANKABILITY ISSUES:** Based on the terms of the PPA for the authorization scheme, the following provisions should be considered:

- o Step-in rights allowing STEG to directly cover project bank debt have been included, but step-in rights to benefit the financing bank have not been specified;
- o No state guaranties have been prepared;
- o The projects may be disconnected by STEG if the producer does not respect technical and contractual obligations (reconnection procedures not specified) *without compensation to the IPP*;
- o The IPP shall not be compensated for 72 hours of annual programmed interruptions for grid maintenance; and
- o No compensation measures for Force Majeur have been defined.



**PROJECT SELECTION:** The following criteria as outlined<sup>8</sup> in the Manuel de Procédures will be considered during the selection process (Please note that this list is not exhaustive, and that the document outlines the full details of the points-based breakdown for evaluating proposals):

- o Experience of the sponsor with similar (technology and scale) projects
- o Project content, including financial benefits, site potential, and technical details
- o Local industrial integration
- o Employment creation
- o Environmental considerations
- o Tariff Proposed

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*Renewable Energy Partner is a project development company and boutique advisory firm specialised in renewable energy projects in the Middle East and Africa. We are dedicated to carrying out project development on our own or alongside local partners as well as investing in late stage development of renewable energy projects. We also provide a wide range of services and are committed to accompany our partners on the ground in all stages of the development of renewable energy projects from the origination of the opportunity all the way through to commissioning and beyond.*

## Contacts

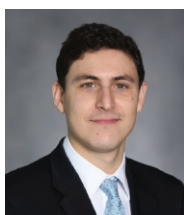
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