



Energy Department  
Economic Affairs  
League of Arab States

# **Arab Renewable Energy Framework**

## **“Reporting Guideline“**

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## **Introduction:**

This document presents a reporting methodology for the Arab Renewable Energy Framework “AREF” that approved by the Executive Bureau of the Arab Ministerial Council of Electricity in September 16, 2014. This reporting guideline is divided into three parts;

**The first part** of the annual AREF report presents a summary of the State-of-Play of the activities under the AREF and reports on the progress of the previous year as well as the Status of any National Renewable Energy Action Plan (NREAP). All information is provided in table form, for ease of reading and comparison of progress among LAS member States.

**Table-1** Informs about the type of RE technology either **promoted** or already **commercially utilized** and more widespread. Two distinct hydro power, seven solar power, two wind power and four biomass or geothermal RE technologies are included in Table-1. The table gives an overview of the progress made about diversification of RE technologies and progress to move from purely promotional and scientific activities to commercialization of a RE technology. Filling out the table requires only to tick off either column 3 or 4 if a technology is either promoted or already commercialized and to provide information where to find the relevant webpages on the Internet, if available.

**Table-2** Informs about national authorities that are presently processing applications, certifying/labelling RE technologies, or licensing RE installations.

**Table-3** Shows the overall progress made under the NREAP in terms of

- a) The total installed MW capacity of fossil fuel and renewable energy power, heat and cooling and the associated GWh of energy generate and its percentage distribution (Columns 3 through 6).
- b) The MW capacity added in the previous year (Column 7) and associated GWh production in the previous year (Column 8).

Table-3 is the master table since it shows the total percentage of RE MW contribution to the MW power mix in Cell (21,5) and the associated percentage RE GWh production to the total GWh production in Cell (21,6).

**Table-4** Provides for the present status of the NREAP concerning its preparation, estimation of implementation costs and sustainable funding sources. Filling out this table requires only answering YES or NO in case a NREAP exists.

**The second part** of the annual AREF report presents a summary of the State-of-Play of the activities concerning projects in the states and joint projects among Arab states (Article 3) and the interconnection and operation of the power grids, including grid code, market rules, stranded RE power, transmission charges, evacuation line financing and power plant commissioning (Article 6). All information should be provided in table form, for ease of reading and comparison of progress among LAS member States.

**Table-5** Provides for the State-of-Play of joint projects among Arab States. The focus is not only on joint projects regarding the construction and financing of RE power plants. A joint

project could be as well joint RE research, or adaptation of rules, regulations, labelling, certification, and testing procedures of RE technologies already practiced in one State.

**Table-6** Lists high voltage DC or AC interconnections commissioned in the **previous** calendar year between neighbouring States.

**Table-7** Lists power evacuation lines commissioned in the previous calendar year connecting the RE power plant to a public grid. Specifics about the underlying business and financing model should be provided.

**Table-8** Information should be provided about any procedural shortcomings and delays in connecting utility scale RE power plants, leading to stranded RE power capacity.

**Table-9** Provides comprehensive information about small scale, distributed RE technologies for power generation and which electricity consumer groups are eligible to connect to the LV grid for export or net-metering. Information should be provided about MW installed, GWh generated, local authorities processing application forms, connection costs.

**Table-10:** Provides information about transmission charges for RE power, whether these are regulated or part of any FIT.

**Table-11:** Provides information about the status of grid codes for LV, MV and HV connections of RE power plants of any capacity.

**The third part** of the annual AREF report presents a summary of the State-of-Play of the activities concerning administrative procedures, regulations and codes (Article 4) and information and training (Article 5). All information should be provided in table form, for ease of reading and comparison of progress among LAS member States.

**Table-12** Technical specification and certification of RE technologies and installations

**Table-13** Licensing of operation of RE installations

**Table-14** Administrative fees and procedures to process RE applications

**Table-15** Codes and standards preparation and publication

**Table-16** Enforcement of codes, labels and standards

**Table-17.1** Feed in Tariff (FIT) strategies

**Table-17.2** Other fiscal or financial incentives schemes for captive RE installations

**Table-18** Information and training about RE installations in buildings

**Table-19** Information about RE technologies and associated training of installers

**Table-20** Training and guidance of staff of local administration bodies

**Table-21** General public awareness-raising campaigns of the benefits and practicability of developing and using energy from renewable sources

The first group of 5 tables of the third group provides for information asked by Article 4:

- a) Technical specification and certification of RE technologies and installations (Table-12)
- b) Licensing of operation of RE systems (Table-13)
- c) Administrative fees and procedures to process RE applications (Table-14)
- d) Codes and standards preparation, publication and enforcement (Table-15 and Table 16 )
- e) Management of incentives systems promoting RE installations (Tables 17.1, Table 17.2)

## **Part 1 :**

### **Section-A: Renewable energy installations and energy sector performance of electricity heat and cooling generation,**

**Table-1: Renewable energy installations in your country (Calendar or Financial Year:           )**

#	1	2	3	4	5
	Type of Technology	Code	<u>P</u>	<u>I</u>	Country relevant references (webpage, and/or focal point)
1	Hydro power plant	HPP			
2	Hydro power pumped storage	HPS			
3	Solar photovoltaic panels (PV)	PV			
4	Concentrating PV	CPV			
5	Concentrating thermal solar (CSP)	CSP			
6	Solar water heater, residential	SWHr			
7	Solar water heater, industry/commerce	SWHic			
8	Solar cooling equipment	SC			
9	Solar heating equipment (except 6, 7)	SH			
10	Wind power plant (electricity)	WPe			
11	Wind power plant (water pumping)	WPw			
12	Heat pumps	HPU			
13	Geothermal plant (electricity)	GTe			
14	Geothermal plant (heat)	GTh			
15	Biomass processing for energy	BMeh			

**Notes:** Tick off the appropriate answer in column 3 or 4. Leave blanks if not applicable. Provide references in column 5 as additional information resources.

**P** = The technology is promoted under the NREAP means pilot plants, or research is ongoing on the subject, but no other installations known so far.

**I** = The technology is already partially or fully commercialized, installed and in use by several parties.

**Column 5** = State any webpage and/or focal point in your country that provides more information about the technology installed and associated actions.

**Table-2 Authorities responsible for Processing, or Certification, or Licensing of renewable energy installations (Year: \_\_\_\_\_)**

#	1	2	3	4	5	6
	Name and Address of Authority	Webpage and internet references	Technology Codes (Table-1)	<u>P</u>	<u>C</u>	<u>L</u>
1						
2						
3						
4						
5						
6						
7						
8						
9						

**Notes:**

- List in column 3 the codes of the technologies the authority is in charge of either processing, and/or certification, and/or licensing.
- Tick off the appropriate mandate and activity of the authority in column 4,5 and 6. Multiple choice allowed !
- See guidelines at <.....webpage.....> concerning the meaning of **p**rocessing, **c**ertification/labelling or **l**icensing.

**Table-3: The sectorial and overall shares of energy from renewable sources and previous calendar year addition**

	#	1	2	3	4	5	6	7	8
		Type of Technology	Code	MW	GWh	%MW	%GWh	+MW	+GWh
Renewable	1	Hydro power plant	HPP						
	2	Hydro power pumped storage	HPS						
	3	Solar photovoltaic panels (PV)	PV						
	4	Concentrating PV	CPV						
	5	Concentrating thermal solar (CSP)	CSP						
	6	Solar water heater, residential	SWHr						
	7	Solar water heater, industry/commerce	SWHic						
	8	Solar cooling equipment	SC						
	9	Solar heating equipment different from 6 and 7	SH						
	10	Wind power plant (electricity)	WPe						
	11	Wind power plant (water pumping)	WPw						
	12	Heat pumps	HPU						
	13	Geothermal plant (electricity)	GTe						
	14	Geothermal plant (heat)	GTh						
	15	Biomass processing for energy	BMe						
		16	Renewable energy based subtotal						
Fossil	17	Fossil fuel power plants (connected to public grid)	FFg						
	18	Fossil fuel power plants (captive)	FFc						
	19	Fossil fuel based electricity subtotal							
	20	Total							
	21	Percent RE MW and RE GWh (base is row 20)							

**Note:**MW=Total installed MW nominal ;GWh = Totalenergy generated from MW; +MW and +GWh added in previous year

**Table-4: Status and progress of NREAP preparation of year( ) (Article 2)**

#	Measures and activities	Y	N	NA
1	The first NREAP exists since (year_____),but written in a different format Ref URL:			
2	The existing NREAP was rewritten in the AREF format by year _____			
3	The latest NREAP states also the cost of implementation of listed measures Ref URL:			
4	The latest NREAP provides for an ensured funding source ( FIT, levy, etc.) Ref URL:			
5	The NREAP contains RE measures that also reduce electricity consumption Ref URL:			
6	The latest NREAP has been prepared by (..... .....) with the assistance of (.....)			
7	The latest NREAP is the ___th edition of the first NREAP of the year_____			

**Notes:** NA= not applicable. Use NA only if no NREAP exists ; URL: Internet webpage

## Part 2:

**Table-5: State-of-Play of RE projects in the Arab states and joint projects between Arab States, partner countries and third parties of the year        (Article 3)**

Provide for each joint project a brief description and tick off the appropriate answers and multiple choices or leave blanks. Consult report preparation guidelines. Multiple choice allowed. Expand if more than four joint projects are or were jointly implemented.

#	<b>Project # 1 Title:</b>				
1	<b>Brief description:</b>				
2	<b>Partner organization(s):</b>				
3	<b>Ref URL:</b>				
4	<b>Partner country:</b>				
5	<b>Third parties involved:</b>				
6	<b>RE technologies codes as per Table-2</b>				
7	Single plant <input type="checkbox"/> , RE technology deployment <input type="checkbox"/> , Joint research <input type="checkbox"/> Rules & Regulations <input type="checkbox"/>				
8	First normal year _____ of operation _____ MW capacity and _____ GWh generation				
9	<b>Sources provided for :</b> Financing <input type="checkbox"/> echnology, Tra <sup>n</sup> g <input type="checkbox"/> , Cor <sup>t</sup> ltancy <input type="checkbox"/>				
10	<b>Sources spent:</b> Buy down Investment <input type="checkbox"/> , Buy down Interest <input type="checkbox"/> , Buy down RE kWh price <input type="checkbox"/>				
11	<b>Project Commenced:</b> mm/yyyy	<b>Duration:</b> yy	<b>Still ongoing ?</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
12	<b>Project Performance within its life time</b>		<b>Perormance decreased by ...% within ...Year</b>		
#	<b>Project # 2 Title:</b>				
1	<b>Brief description:</b>				
2	<b>Partner organization(s):</b>				
3	<b>Ref URL:</b>				
4	<b>Partner country:</b>				
5	<b>Third parties involved:</b>				
6	<b>RE technologies codes as per Table-2</b>				
7	Single plant <input type="checkbox"/> , RE technology deployment <input type="checkbox"/> , Joint research <input type="checkbox"/> Rules & Regulations <input type="checkbox"/>				

8	First normal year _____ of operation _____ MW capacity and _____ GWh generation				
9	<b>Sources provided for :</b> Financing <input type="checkbox"/> echnology, Tra <b>ng</b> , Cor <b>ltancy</b> <input type="checkbox"/>				
10	<b>Sources spent:</b> Buy down Investment <input type="checkbox"/> , Buy down Interest <input type="checkbox"/> , Buy downRE kWh price <input type="checkbox"/>				
11	<b>Project Commenced:</b> mm/yyyy	<b>Duration:</b> yy	<b>Still ongoing ?</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
12	<b>Project Performance within its life time</b>		<b>Performance decreased by ...% within ...Year</b>		
#	<b>Project # 3 Title:</b>				
1	<b>Brief description:</b>				
2	<b>Partner organization(s):</b>				
3	<b>Ref URL:</b>				
4	<b>Partner country:</b>				
5	<b>Third parties involved:</b>				
6	<b>RE technologies codes as per Table-2</b>				
7	Single plant <input type="checkbox"/> , RE technology deployment <input type="checkbox"/> , Joint research <input type="checkbox"/> Rules & Regulations <input type="checkbox"/>				
8	First normal year _____ of operation _____ MW capacity and _____ GWh generation				
9	<b>Sources provided for :</b> Financing <input type="checkbox"/> echnology, Tra <b>ng</b> , Cor <b>ltancy</b> <input type="checkbox"/>				
10	<b>Sources spent:</b> Buy down Invest <input type="checkbox"/> , Buy down Interest <input type="checkbox"/> , Buy downRE kWh price <input type="checkbox"/>				
11	<b>Project Commenced:</b> mm/yyyy	<b>Duration:</b> yy	<b>Still ongoing ?</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
12	<b>Project Performance within its life time</b>		<b>Perormance decreased by ...% within ...Year</b>		
#	<b>Project # 4 Title:</b>				
1	<b>Brief description:</b>				
2	<b>Partner organization(s):</b>				
3	<b>Ref URL:</b>				
4	<b>Partner country:</b>				
5	<b>Third parties involved:</b>				
6	<b>RE technologies codes as per Table-2</b>				

7	Single plant <input type="checkbox"/> , RE technology deployment <input type="checkbox"/> , Joint research <input type="checkbox"/> , Rules & Regulations <input type="checkbox"/>				
8	First normal year _____ of operation _____ MW capacity and _____ GWh generation				
9	Sources provided for :Financing <input type="checkbox"/> , Technology, Trading <input type="checkbox"/> , Corollarity <input type="checkbox"/>				
10	Sources spent: Buy down Invest <input type="checkbox"/> , Buy down Interest <input type="checkbox"/> , Buy down RE kWh price <input type="checkbox"/>				
11	Project Commenced:mm/yyyy	Duration:yy	Still ongoing ?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
12	Project Performance within its life time		Perormance decreased by ...% within ...Year		

In this section information is collected to satisfy Article 6 of AREF. Information provided in this section does not only concern the impact of RE installations on the power grid, or required reinforcement and expansion of an existing grid, due to successful RE installations. The development of grid connected RE utility scale power plants, as well as decentralized smaller grid connected RE installations (mostly PV 1 kW to 1 MW ) feeding into the grid, introduces new challenges of synchronizing and balancing the grid.

**Table-6: Interconnections commissioned in the previous calendar year**

Please list only interconnections that have been commissioned, meaning the connection was synchronized and trial or full commercial operation commenced in the **previous** year.

#	<b>Interconnection No 1:</b>			Commissioned:_____
1	From City:	To City:	To Country:	
2	Capacity _____MVA	Voltage: <input type="checkbox"/> AC____kV, <input type="checkbox"/> HVDC____kV	Length:_____km	
3	TSOs and third party that were in charge of synchronization:			
#	<b>Interconnection No 2:</b>			Commissioned:_____
1	From City:	To City:	To Country:	
2	Capacity MVA:	Voltage: <input type="checkbox"/> AC____kV, <input type="checkbox"/> HVDC____kV	Length:_____km	
3	TSOs and third party that were in charge of synchronization:			
#	<b>Interconnection No 3:</b>			Commissioned:_____
1	From City:	To City:	To Country:	
2	Capacity MVA:	Voltage: <input type="checkbox"/> AC____kV, <input type="checkbox"/> HVDC____kV	Length:_____km	
3	TSOs and third party that were in charge of synchronization:			

**Table-7: Power evacuation lines of utility scale RE power plants(previous year)**

#	<b>Evacuation line No 1:</b>			Commissioned:_____
1	From location:	To Substation:		
2	Capacity _____MVA	Voltage: <input type="checkbox"/> _____kV,	Length:_____km	
3	RE power plant code:	Capacity:_____MW	Business Modell: <input type="checkbox"/> IPP, <input type="checkbox"/> EPC	
4	Party that paid for the evacuation line:	<input type="checkbox"/> Power Buyer	<input type="checkbox"/> Power Seller	<input type="checkbox"/> Shared
5	Parties that were in charge of synchronization:			
#	<b>Evacuation line No 2:</b>			Commissioned:_____
1	From location:	To Substation:		

2	Capacity _____MVA	Voltage: <input type="checkbox"/> _____kV,	Length: _____km
3	RE power plant code:	Capacity: _____MW	Business Modell: <input type="checkbox"/> IPP, <input type="checkbox"/> EPC
4	Party that paid for the evacuation line:	<input type="checkbox"/> Power Buyer	<input type="checkbox"/> Power Seller <input type="checkbox"/> Shared
5	Parties that were in charge of synchronization:		
#	<b>Evacuation line No 3:</b>		Commissioned: _____
1	From location:	To Substation:	
2	Capacity _____MVA	Voltage: <input type="checkbox"/> _____kV,	Length: _____km
3	RE power plant code:	Capacity: _____MW	Business Modell: <input type="checkbox"/> IPP, <input type="checkbox"/> EPC
4	Party that paid for the evacuation line:	<input type="checkbox"/> Power Buyer	<input type="checkbox"/> Power Seller <input type="checkbox"/> Shared
5	Parties that were in charge of synchronization:		
#	<b>Evacuation line No 4:</b>		Commissioned: _____
1	From location:	To Substation:	
2	Capacity _____MVA	Voltage: <input type="checkbox"/> _____kV,	Length: _____km
3	RE power plant code:	Capacity: _____MW	Business Modell: <input type="checkbox"/> IPP, <input type="checkbox"/> EPC
4	Party that paid for the evacuation line:	<input type="checkbox"/> Power Buyer	<input type="checkbox"/> Power Seller <input type="checkbox"/> Shared
5	Parties that were in charge of synchronization:		

**Table-8: Information on utility scale stranded RE power plant capacity.**

Provide information about **presently** stranded RE power capacity due to long procedural delays in providing adequate transmission system or evacuation line capacity.

#			
1	Presently <b>stranded</b> RE capacity of ___ MW of utility scale RE power plants that could be operated, but lack the <input type="checkbox"/> transmission infrastructure and/or <input type="checkbox"/> permissions to sell power. <b>Causes:</b>		
2	Presently <b>planned</b> RE capacity of ___ MW of utility scale RE power plants that have obtained financial closure or ensured financing, but lack the <input type="checkbox"/> transmission infrastructure and/or <input type="checkbox"/> permissions to sell power. <b>Causes:</b>		
3	<b>Most common procedures of tendering and construction of evacuation lines</b>		
4	Evacuation line is tendered by the concerned TSO	Yes <input type="checkbox"/>	NO <input type="checkbox"/>
5	Evacuation line is constructed by the concerned TSO	Yes <input type="checkbox"/>	NO <input type="checkbox"/>
6	Evacuation line commissioning by concerned TSO	Yes <input type="checkbox"/>	NO <input type="checkbox"/>

**Table-9: Information on decentralized small scale RE power plants deployment**

Provide information about procedures of connection and synchronization of small PV installations with an low voltage (LV) distribution network (< 11 kV).

#	<b>Subject</b>
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1	Which electricity consumers are presently eligible to connect a PV installation to the LV grid <input type="checkbox"/> Residential, <input type="checkbox"/> Commercial, <input type="checkbox"/> Agriculture, <input type="checkbox"/> Public, <input type="checkbox"/> Industry, <input type="checkbox"/> None of them
2	(i) If allowed elaborate here on procedures and costs such as: - Number of connections and MW capacity already connected - Party that pays for the connection costs from the PV inverter to the LV grid? - Local authority processing the application forms ? - Typical example of connection costs. - Party that performs the connection ? - Whether the connection also allows net metering ? - Ref URL or contact information to avail of set of application forms (ii) If <b>NOT</b> allowed, state any future plans to introduce such a scheme

**Table-10: Transmission charges of utility scale RE power plants**

#			
1	Present transmission charges are part of a FIT	Yes <input type="checkbox"/>	NO <input type="checkbox"/>
2	In addition there is a sales tax on the FIT	Yes <input type="checkbox"/>	NO <input type="checkbox"/>
3	Transmission charges are part of the PPA signed	Yes <input type="checkbox"/>	NO <input type="checkbox"/>
4	The technical losses and evacuation line depreciation cost up to the revenue meter are on account of the seller	Yes <input type="checkbox"/>	NO <input type="checkbox"/>
5	Transmission charges of TSO are <b>regulated</b> by:		NA <input type="checkbox"/>
6	Transmission charges apply only down stream of the sellers' revenue meter	Yes <input type="checkbox"/>	NO <input type="checkbox"/>
7	REF URL and additional information concerning transmission charges such as - Examples of transmission cost charged by a TSO. - Regulations about transmission and evacuation line cost of RE plants far away from the grid		

**Table-11: Information about grid codes**

Grid codes govern the connection and synchronization of an RE installation of any size before it is certified and becomes ready for commercial operation.

#			
1	A grid code to connect a utility scale power plants is available	Yes <input type="checkbox"/>	NO <input type="checkbox"/>
2	If YES provide Ref URL: IF NO explain which code governs the connection		
2	A grid code is available to connect smaller RE installations to the low voltage distribution system of (_____V to _____kV)	Yes <input type="checkbox"/>	NO <input type="checkbox"/>
3	If YES, provide Ref URL:		

	IF NO, explain which code governs the connection		
4	The grid code is part of the market rules published at URL:	Yes <input type="checkbox"/>	NO <input type="checkbox"/>

### **Part 3 :**

**Table-12: Technical specification and certification of RE technologies and installations**

#	Subject	
1	RE technologies that must comply with specific national or international technical specification before they can be sold or installed ?	
2	RE technologies that must carry a visible mandatory label:	
3	RE technologies that carry a voluntary visible label:	
4	Ref URL of label program, if any:	
5	RE technologies requiring a certification of installation:	
6	Certifying authorities or installers (who issues the certification and who installs it?)	
7	RE technologies installed by licensed installers :	
8	About .....licensed installers for .....are available and have been trained by .....and licensed by .....	
9	Ref URL of installer licensing procedures:	

**Note:** Use RE technology codes of **Table-15**

**Table-13: Licensing of operation of RE installations**

#	Subject	
1	RE installations requiring a license to operate and sell:	
2	Authorities to issue the license :	
3	REF URL:	
4	RE installations requiring a license to operate for self consumption of the output:	
5	Authorities to issue the license :	
6	<b>REF URL:</b>	
7	Actions taken to further simplify licensing procedures in the last year	Yes <input type="checkbox"/> NO <input type="checkbox"/>
8	<p style="text-align: center;"><b>Before Improvement</b></p> <p>a) b) c) d)</p>	<p style="text-align: center;"><b>After Improvement</b></p> <p>a) b) c) d)</p>

**Table-14: Administrative fees and procedures to process RE applications**

Provide typical examples of fees paid in local currency for certain administrative services provided by a Government authority or private sector service providers whom are associated with the certification or installation of an RE technology. These typical service examples should shed also some light on the administrative process of certification and therefore shall be arranged accordingly in a logical sequence. Use technology code of Table 15 for column 3

	<b>1</b>	<b>2</b>	<b>3</b>
<b>#</b>	<b>Service provided</b>	<b>Fee</b>	<b>RE Technology</b>
<b>1</b>			
<b>2</b>			
<b>3</b>			
<b>4</b>			
<b>5</b>			
<b>6</b>			
<b>7</b>			
<b>8</b>			
<b>9</b>			
<b>10</b>			
<b>11</b>			
<b>12</b>			
<b>13</b>			
<b>14</b>			
<b>15</b>			
<b>16</b>			
<b>17</b>			
<b>18</b>			

**Table-15: Codes and standards preparation and publication**

Manufacturing RE systems, tendering specifications, and even operation of RE installations are governed by international and national standards and norms. This table addresses national codes and standards that have been either adapted from international code or standards, or written completely new. Tick off column 3 if a **national** standard has been published. If not and leave the row blank.

<b>Government authority in charge of national standards:</b>						
<b>Ref URL:</b>						
#	1	2	3	4		
	Type of Technology	Code	Yes	Major <u>national</u> standards or codes (Title and Standard number)		
1	Hydro power plant	<b>HPP</b>				
2	Hydro power pumped storage	<b>HPS</b>				
3	Solar photovoltaic panels (PV)	<b>PV</b>				
4	Concentrating PV	<b>CPV</b>				
5	Concentrating thermal solar (CSP)	<b>CSP</b>				
6	Solar water heater, residential	<b>SWHr</b>				
7	Solar water heater, industry/commerce	<b>SWHic</b>				
8	Solar cooling equipment	<b>SC</b>				
9	Solar heating equipment different from 6 and 7	<b>SH</b>				
10	Wind power plant (electricity)	<b>WPe</b>				
11	Wind power plant (water pumping)	<b>WPw</b>				
12	Heat pumps	<b>HPU</b>				
13	Geothermal plant (electricity)	<b>GTe</b>				
14	Geothermal plant (heat)	<b>GTh</b>				
15	Biomass processing for energy	<b>BMe</b>				
16	National authorities issuing codes and standards:					
17	A grid code governing the connection and synchronization to a grid is available for RE installations:					
18	This <b>grid code</b> (of year _____) has been an amendment/revision of the existing grid code for fossil fuel power plants.			Yes <input type="checkbox"/>	NO <input type="checkbox"/>	NA <input type="checkbox"/>

**Table-16: Enforcement of codes, labels and standards**

Compliance with mandatory codes, labels and standards is often unsatisfactory, because the Government Authority that has prepared and sanctioned a standard or code is in general not responsible for enforcement of the standards and codes.

#	Code or Standard(From Table 15, Column 4)	Enforcement Agencies
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		

Disbursement management of incentives or incremental cost cover (if any) for RE technologies as well as sourcing of funding to pay for, are addressed in this section. It will be necessary to read the guidelines to fill out this section.

**Table-17.1 Feed in Tariff (FIT) strategies**

Provide information only if there is a FIT system for electricity in place. Multiple choices !

#	1	2	3
1	The FIT is available for <input type="checkbox"/> V, CS <input type="checkbox"/> Wind <input type="checkbox"/> Hydro, <input type="checkbox"/> Biomass <input type="checkbox"/> _____ <input type="checkbox"/>		
2	The FIT is also a net metering FIT allowing export and self consumption: Yes <input type="checkbox"/> ,No <input type="checkbox"/>		
3	The FIT is published at URL:		
4	The FIT is paid from <input type="checkbox"/> fixed levy, <input type="checkbox"/> consumption levy, <input type="checkbox"/> public budget, <input type="checkbox"/> other fund		
5	The levy is paid by <input type="checkbox"/> all rate payers, <input type="checkbox"/> group of rate payers, no <input type="checkbox"/> applicable		
6	The FIT is spent to buy down investors investment <input type="checkbox"/> interest rate ,RE <input type="checkbox"/> Wh costs <input type="checkbox"/>		
7	The FIT is capped <input type="checkbox"/> by volume, <input type="checkbox"/> by capacity, or is a breathing cap <input type="checkbox"/> not capped <input type="checkbox"/>		
8	The FIT is split up in an energy charge and a capacity charge, Yes <input type="checkbox"/> No <input type="checkbox"/>		
9	The FIT is a quota system of RE installations tendered by power utilities Yes <input type="checkbox"/> ,No <input type="checkbox"/> Ref URL:		
10	The FIT is determent by competitive bidding under an IPP business modell: Yes <input type="checkbox"/> ,No <input type="checkbox"/>		
11	Estimated annual <b>last year</b> resource collection to pay for FIT is:		
12	The FIT resource is collected by which Authority ?:		
13	The FIT resource is paid out (distributed) by:		
14	Elaborate on other relevant information not captured by the above information, such as management of the FIT, net metering caps, import tax reductions for RE equipment, local content requirements, period the FIT is paid for, two tiered FIT. Provide Ref URLs whenever available.		

## Table 17.2 Other fiscal or financial incentives schemes for captive RE installations

Provide information about other financial and fiscal schemes for RE installations that do not feed electricity to a grid but are generating electricity or heat for own consumption and do not fall under FIT or net metering incentives of Table 11.1.

#	Subject
1	List the EE technology codes of captive EE installations eligible for fiscal or financial incentives:
2	<p>Describe these incentives by technology as listed above. Elaborate on the following essential points for each RE technology:</p> <ul style="list-style-type: none"> <li>• Year of introduction of the incentive scheme</li> <li>• Year of phasing out the incentive scheme, if known</li> <li>• Estimated amount of spending in the last year</li> <li>• Eligible energy consumer groups receiving the incentives</li> <li>• Source(s) of funding including external donor funding if applicable</li> <li>• Any Ref URL providing additional information in particular promotional material</li> </ul>

## Information and Training

This section refers to Article 5 of the AREF about information and training. The subject area shall be presented by four categories.

1. Information about RE energy installation in buildings as well as training opportunities on the subject area (**Table-18**)
2. Information on certification of equipment as well as training of RE equipment installers and training of professional RE service providers. (**Table-19**)
3. Training, guidance of local authorities involved in processing RE installations. (**Table-20**)
4. General public awareness-raising campaigns of the benefits and practicability of developing and using energy from renewable sources (**Table-21**)

**Table-18: Information and training about RE installations in buildings**

Whenever necessary use technology codes of Table-15. Multiple choice allowed,

#	1	2	3
1	Is there a building code regulating RE installations of buildings ? Ref URL:	Yes <input type="checkbox"/>	NO <input type="checkbox"/>
2	RE installation code provisions <input type="checkbox"/> are mandatory for RE technologies : <input type="checkbox"/> or recommended for <input type="checkbox"/> RE technologies: _____ or NA		
3	The RE building code applies to <input type="checkbox"/> public buildings, <input type="checkbox"/> residential, <input type="checkbox"/> commercial buildings		
4	The RE building code applies to <input type="checkbox"/> buildings only, existing <input type="checkbox"/> and new buildings		
5	Training is offered to apply the provisions of the RE building code	Yes <input type="checkbox"/>	NO <input type="checkbox"/>
6	Provide information about formal training availability for architects, planners, contractors and building managers on the subject of inclusion of RE installation in planned buildings or retrofitting buildings: - Name of program - Profile of participants - Any degree or certification for successful candidates ? - Number of participants trained in the last previous calendar year? - Training fees charged, if any - Ref URL		
7	Specific public awareness-raising campaigns for RE installations in buildings Ref URLs:	Yes <input type="checkbox"/>	NO <input type="checkbox"/>

**Table-19: Information about RE technologies and associated training of installers**

This table provides information about a central point of any successful RE deployment distributed small scale RE installations such as PV and SWH in buildings or even biomass stoves or fire places: Training and certification of installers and an internet portal for information!

#	1	2	3
1	Is there a general internet portal providing technical and promotional information about RE technologies ?	Yes <input type="checkbox"/>	NO <input type="checkbox"/>
2	If YES: Provide Ref URL If NO: Provide information on practiced alternative ways to inform about RE technologies and what information is actually provided:		

3	<p>Information of training of installers that is additional to Table -12:</p> <ul style="list-style-type: none"> <li>- Number of installers trained in each relevant RE technology</li> <li>- Certification and registration procedures for installers, if any</li> <li>- Where are the installer names published and how are they contacted for hire</li> <li>- Installer empanelment by Government authorities or institutions, if any</li> </ul>		

**Table-20: Training and guidance of staff of local administration bodies**

Some administrative acts required by national RE deployment programs are delegated to local administrations by the Central Government. The administrative structure of local Government is country specific. Sharing of powers as well. Table-20 shall provide information about this structure and sharing of power between the Centre and local administrators.

#		
1	Are formal RE training courses for local administrators available to guide them in their duties and responsibilities to assist in implementation of RE deployment strategies at a national level ?	Yes <input type="checkbox"/> NO <input type="checkbox"/>
2	If YES: Provide information about courses offered, affiliation of participants and numbers trained in the last year.	

	If NO: Provide information about practiced alternative ways to guide local administrators.
3	<p>Provide an overview of the administrative structure and sharing of power between Central Government and local administration concerning rules, regulations, codes, standards and certification associated with RE installations.</p> <p>-Which tasks are delegated to local administration levels ?</p> <p>- Name of local administrations performing these task</p> <p>- Any enforcement and control tasks performed by local government?</p>

**Table- 21: General public awareness-raising campaigns of the benefits and practicability of developing and using energy from renewable sources**

#	Campaign No 1	Commenced:_____	Ended:_____	Ongoing: Yes <input type="checkbox"/> NO <input type="checkbox"/>
1	<b>Media:</b> Radio <input type="checkbox"/> , TV <input type="checkbox"/> , News paper <input type="checkbox"/> , Public event <input type="checkbox"/> , Other <input type="checkbox"/> _____			
2	Targeted RE technologies, if any, from Table-1:			General <input type="checkbox"/>
3	Targeted audience:			
4	Estimation of costs	Production only: _____	Total cost up to date: _____	
5	REF URLs and documentation:			

#	Campaign No 2	Commenced:_____	Ended:_____	Ongoing: Yes <input type="checkbox"/> NO <input type="checkbox"/>
1	<b>Media:</b> Radio <input type="checkbox"/> , TV <input type="checkbox"/> , News paper <input type="checkbox"/> , Public event <input type="checkbox"/> Other <input type="checkbox"/> _____			
2	Targeted RE technologies, if any, from Table-1:			General <input type="checkbox"/>
3	Targeted audience:			
4	Estimation of costs	Production only: _____	Total cost up to date:_____	
5	REF URLs and documentation:			
#	Campaign No 3	Commenced:_____	Ended:_____	Ongoing: Yes <input type="checkbox"/> NO <input type="checkbox"/>
1	<b>Media:</b> Radio <input type="checkbox"/> , TV <input type="checkbox"/> , News paper <input type="checkbox"/> , Public events <input type="checkbox"/> , Other <input type="checkbox"/> _____			
2	Targeted RE technologies, if any, from Table-1:			General <input type="checkbox"/>
3	Targeted audience:			
4	Estimation of costs	Production only: _____	Total cost up to date:_____	
5	REF URLs and documentation:			
#	Campaign No 4	Commenced:_____	Ended:_____	Ongoing: Yes <input type="checkbox"/> NO <input type="checkbox"/>
1	<b>Media:</b> Radio <input type="checkbox"/> , TV <input type="checkbox"/> , News paper <input type="checkbox"/> , Public event <input type="checkbox"/> , Other <input type="checkbox"/> _____			
2	Targeted RE technologies, if any, from Table-1:			General <input type="checkbox"/>
3	Targeted audience:			
4	Estimation of costs	Production only: _____	Total cost up to date:_____	
5	REF URLs and documentation:			
#	Campaign No 5	Commenced:_____	Ended:_____	Ongoing: Yes <input type="checkbox"/> NO <input type="checkbox"/>
1	<b>Media:</b> Radio <input type="checkbox"/> , TV <input type="checkbox"/> , News paper <input type="checkbox"/> , Public event <input type="checkbox"/> , Other <input type="checkbox"/> _____			
2	Targeted RE technologies, if any, from Table-1:			General <input type="checkbox"/>
3	Targeted audience:			
4	Estimation of costs	Production only: _____	Total cost up to date:_____	
5	REF URLs and documentation:			