## **M&E National System**



Results	Indicators	Unit	Baseline	Target	Collection Respon- sibility	Data source		
Direct project outputs and outcomes								
1. Increase in access to electricity	Number of rural beneficiaries with <u>new access</u> to electricity (coming from renewable sources <sup>1</sup> )	# of people	100,000	200,000	ENEE	National Coverage Report		
2. Increase in RE generation capacity and supply	RE generation capacity	MW	60 <sup>2</sup>	100	ENEE	Electrical Statistics		
3. Expansion of transmission infrastructure (to ensure access to RE generation potential)	New transmission capacity	km of transmissi on lines and # of sub- stations		7 existing substations to be expanded, 4 new substations, and 207 km of new transmission lines	ENEE	Expansion Planning		
4.Reduction in expenses for energy services	Marginal cost of electricity (grid)	USD/ MWh	107	TBD <sup>3</sup>	ENEE	ENEE		
	Expenses for firewood purchase: a) rural, b) urban	$HNL^4$	a) 14,560, b) 23,660	a) 5,824, b) 9,464⁵	SERNA	ICF/ SERNA		
5. Increase in access to lower cost-lower emission energy technologies	New access to efficient cook stoves	# of additional cook- stoves		50,000	SERNA	ICF/ SERNA		
6. Reduction of GHG emissions	a) Tons of CO₂e emissions avoided – Grid connected generation	Tons CO <sub>2</sub> e / year		152,424 <sup>6</sup>	SERNA	SERNA		

<sup>&</sup>lt;sup>1</sup> Excludes large-hydro

<sup>&</sup>lt;sup>2</sup> This baseline generation capacity corresponds to the current small-hydro installed capacity, given that this is the technology that is expected to receive most of the SREP investment and financing of the grid connected generation (ADERC) component given the cost-effectiveness and readiness criteria to be applied.

<sup>&</sup>lt;sup>3</sup> The expected effect of new, lower-cost RE on marginal cost in the grid will be estimated during project preparation phase, or early in the implementation phase (once solid forecasts on new RE supply into the grid can be completed).

<sup>&</sup>lt;sup>4</sup> HNL: Honduran Lempiras. At the exchange rate of 1 USD = 19.11 HNL, equivalent baselines values in USD are a) USD 762, and b) 1,238. Targets are a) USD 305 and b) USD 496.

<sup>&</sup>lt;sup>5</sup> Baseline minus 60% (based on expected efficiency gains from efficiency cookstoves)

<sup>&</sup>lt;sup>6</sup> This initial estimate has been based on the target of 60MW of new small-hydro generation capacity, an expected capacity factor of 50%, and a grid emission factor of 0.58 (this grid emission factor will be confirmed upon adoption of an adequate methodology).

	b) Tons of CO₂e emissions avoided – efficient cook stoves	Tons CO₂e		TBD <sup>7</sup>	SERNA	SERNA/ ICF
7. New and additional funds for projects related to renewable energies	SREP funding leverage factor	ratio		1:9	SEFIN	SEFIN
	Catalyzing	and replica	tion effect			
1. Increase in investments in renewable energy	a) RE investment of total investment in generation in the energy sector	%	TBD <sup>8</sup>	TBD <sup>9</sup>	SERNA/ SEFIN	SERNA/ ENEE
	b) Rate of new investment in RE generation capacity	USDM/ year	20 <sup>10</sup>	50 <sup>11</sup>	SERNA/ SEFIN	SERNA/ ENEE
2. Improving the conditions favorable for production and use of renewable energy	b) enactment of policies, laws and regulations for renewable energy	Policies, Laws, Regula- tions		Long-term energy policy developed and enacted	SERNA /CNE	SERNA/ CNE
				Regulations and adaptations of promotion policies adequate to each RE technology	SERNA/ CNE	SERNA/ CNE
				Standards and specifications for each RE technology	SERNA/ CNE	SERNA/ CNE
	c) development of guidelines			Guidelines for obtaining construction, operation and supply permits	SERNA/ CNE	SERNA/ CNE

<sup>&</sup>lt;sup>7</sup> This will be determined upon adoption of an adequate methodology. The calculation will be based on the average emissions from traditional open fires and the expected reductions in the consumption of wood from the use of efficient cookstoves.

<sup>&</sup>lt;sup>8</sup> Further research will be done during project preparation phase to determine average investment in generation in the energy sector in past years.

<sup>&</sup>lt;sup>9</sup> Will be determined during project preparation phase.

<sup>&</sup>lt;sup>10</sup> This baseline of investment in RE generation capacity corresponds to the estimated investment in small-hydro, given that this is the technology that is expected to receive most of the SREP investment and financing of the grid connected generation (ADERC) component given the cost-effectiveness and readiness criteria to be applied.

<sup>&</sup>lt;sup>11</sup> This target investment will include expected catalytic effect (investment on other small-hydro projects beyond those which the program will finance directly).

3. Increased access infrastructure to RE generation sources	RE generation potential <u>newly</u> <u>accessible</u> through new transmission infrastructure	MW		208 <sup>12</sup>	ENEE	Electrical Statistics	
4. Increase in energy security	a) Proportion of total power from renewable sources	% of total GWh	48	TBD <sup>13</sup>	ENEE	Electrical Statistics	
	b) Proportion of installed capacity from renewable sources	%	38	56 <sup>14</sup>	ENEE	Electrical Statistics	
Transformative Impact							
Transformation of supply and use of energy by poor women and men in low income developing countries, with low levels of low carbon emission	a) percentage (%) of energy services from modern sources, renewable with low carbon emission levels	%	51.0	TBD <sup>15</sup>	DGE/ SERNA	BEN	
	b) proportion of population with access to electricity	%	81.3	85.0 <sup>16</sup>	ENEE	National Coverage Report	
	c) per capita energy consumption	BOE per capita	3.52	TBD <sup>17</sup>	SERNA	BEN/ INE	
	d) per capita electricity consumption	kWh per capita	643	TBD <sup>18</sup>	No	BEN/ INE	
	e) Time dedicated to the collection of firewood for use in cook stoves by i) women, and ii) men		TBD <sup>19</sup>	TBD	TBD	TBD	
	g) Reduced deforestation pressure	Annual rate of defores- tation	TBD <sup>20</sup>	TBD	TBD	TBD	

<sup>&</sup>lt;sup>12</sup> This figure represents the amount of RE generation potential identified in previous studies and that –if the corresponding RE plants were built- the new transmission lines would be able to connect into the grid.

<sup>&</sup>lt;sup>13</sup> Will be determined during project preparation phase.

<sup>&</sup>lt;sup>14</sup> By 2015, from ENEE's Expansion Plan.

<sup>&</sup>lt;sup>15</sup> Will be determined during project preparation phase.

<sup>&</sup>lt;sup>16</sup> Target by 2015.

<sup>&</sup>lt;sup>17</sup> Will be determined during project preparation phase.

<sup>&</sup>lt;sup>18</sup> Will be determined during project preparation phase.

<sup>&</sup>lt;sup>19</sup> Baseline and target numbers will be determined in the preparation phase (or early stages if program implementation), after adequate studies have been conducted.

<sup>&</sup>lt;sup>20</sup> Baseline and target numbers will be determined in the preparation phase (or early stages if program implementation), after adequate studies have been conducted.