



**PERFORMANCE AGREEMENT**

**BETWEEN**

**Secretary and Director**

**DEPARTMENT OF RENEWABLE ENERGY  
MINISTRY OF ECONOMIC AFFAIRS**

**(July 1, 2019 – June 30, 2020)**

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**Preamble**

The Performance Agreement is entered into between the Secretary and , .

The objectives of this Performance Agreement are:

- a) To establish clarity and consensus about annual priorities for the consistent with the o11th Five Year Plan of the Ministry, and Government's other priorities;
- b) To provide an objective and fair basis for evaluating the overall performance of the at the end of the financial year

The Performance Agreement represents an important accountability mechanism for inculcating a performance based culture at all levels of government.

**THEREFORE**, the parties hereto agree as follows:

## **Section 1: Vision, Mission and Objectives**

### **Vision**

Ensure energy security and sustainable development of the country through promotion of renewable energy technologies, energy efficiency and conservation measures

### **Mission**

- Promote and govern the use of clean, affordable and reliable renewable energy systems for socio-economic development,
- Promote and adopt energy efficiency and conservation measures through energy efficient technologies and appropriate behavioral changes,
- Encourage inclusive and broad-based participation of stakeholders through policy reforms in the sustainable energy production and consumption sectors.

### **Objectives**

- 1) Promote clean renewable energy technologies through climate mechanisms
- 2) Access to electricity enhanced
- 3) Emissions reduced through demand side management of energy
- 4) Industrial sector emissions minimized through cleaner production and low emission development practices
- 5) To institutionalize and strengthen Government Performance Management System
- 6) To ensure full utilization of Budget
- 7) Transparent, accountable & integrity consciousness and culture strengthened



## Section 2: Objectives, Success Indicators & Target

Objective	Weight	Action	Success Indicator	Unit	Weight	Excellent [100%]	Very Good [90%]	Good [80%]	Fair [70%]	Poor [60%]
Promote clean renewable energy technologies through climate mechanisms	55	Collect preliminary data and validate sites for small hydropower projects identified through desktop studies	Preliminary data collected and site validated for the identified SHPs	Status of Work	6	Preliminary data collection and site validation of small hydropower projects for the 10 potential sites completed	Preliminary data collection and site validation of small hydropower projects for the 8 potential sites completed	Preliminary data collection and site validation of small hydropower projects for the 6 potential sites completed	Preliminary data collection and site validation of small hydropower projects for the 4 potential sites completed	Preliminary data collection and site validation of small hydropower projects for the 2 potential sites completed
		Carry out Feasibility study (FS) for Lunana Hydropower Project	FS for Lunana Hydropower Project conducted	Status of Work	5	FS report submitted for Department's approval	Draft FS report prepared and presented to the Department for views & comments	Field investigations completed for the FS of the project	Work plans prepared and agreement for carrying out the FS formalized	Terms of Reference finalized

Promote clean renewable energy technologies through climate mechanisms	55	Carry out desktop studies for the Small Hydro Power (SHP) projects identified in Renewable Energy Master Plan.	Desktop studies for SHP projects carried out	Number	6	Desktop studies for small hydropower projects in 4 Dzongkhags undertaken	Desktop studies for small hydropower projects in 3 Dzongkhags carried out	Desktop studies for small hydropower projects in 2 Dzongkhags carried out	Desktop studies for small hydropower projects in 1 Dzongkhag carried out	Preparatory works started
		Review, redesign and test Bhutan eco-stove	Bhutan eco-stove reviewed, redesigned and tested	Status of Work	5	Final report submitted to the Department for approval	Carryout appropriate Stove test, and submit reports/results to the Department	Revised design presented to the Department for its views/comments and prototype developed	Reviewed the existing stove and present the improved proposal to the Department	Consultant recruited

Promote clean renewable energy technologies through climate mechanisms	55	Install Solar water heating systems	Solar Water Heating Systems (SWHS) installed & commissioned	Status of Work	6	Installed and commissioned 15 SWHS	Installed and commissioned 10 SWHS	Installed and commissioned 5 SWHS	Contract signed and awarded	SBD Finalized
		Procure Solar Home Lighting Systems (SHLS).	Materials required for Solar Home Lighting Systems procured	Status of Work	5	Procured 100 sets of SHLS	Contract signed and works awarded	NIT floated in the ministry's website and other advertisement newspaper	SBD finalized	SBD prepared
		Conduct Feasibility Studies for Solar & Wind Power	Feasibility Studies for Wind and Solar PV plant approved by the Ministry	Date	5	05/31/2020	06/10/2020	06/15/2020	06/20/2020	06/25/2020
		Develop National Biogas Implementation Strategy	National Biogas Implementation Strategy endorsed by the Ministry	Date	5	05/31/2020	06/10/2020	06/15/2020	06/20/2020	06/30/2020
		Provide professional services to biogas plants (Technical backstopping and monitoring services)	Professional services to biogas plants provided	Number	6	Professional services to 100 biogas plants provided	Professional services to 80 biogas plants provided	Professional services to 60 biogas plants provided	Professional services to 40 biogas plants provided	Professional services to 20 biogas plants provided



Promote clean renewable energy technologies through climate mechanisms	55	Rehabilitate existing solar home systems	O&M for solar home systems carried out	Number	6	800 nos of solar home systems maintained	600 Nos of solar home systems maintained	400 Nos of solar home systems maintained	200 Nos of solar home systems maintained	100 Nos of solar home systems maintained
Access to electricity enhanced	6	Electrify identified potential off-grid households through grid electrification	Construction of MV line and LV line for the grid electrification carried out	Status of Work	6	20% of the MV line and 7% of LV line constructed	Supply and delivery of materials procured to the sites	Award of contracts for the civil works	Evaluation report forwarded and approval sought for the civil works	Tender floated and evaluation of bids completed for additional packages
Emissions reduced through demand side management of energy	18	Conduct Research on Renewable Energy and Energy Efficiency	Research on Renewable Energy and Energy Efficiency conducted	Number	6	1	0	0	0	0
		Standards and Labeling Scheme for EE Appliances	One appliance certified	Number	6	1	0	0	0	0

Emissions reduced through demand side management of energy	18	Develop Energy Auditing and Reporting Guidelines for Industries and Buildings zero draft	Energy Auditing and Reporting Guidelines for Industries and Buildings zero draft prepared	Status of Work	6	Energy Auditing and Reporting Guidelines for Industries and Buildings zero draft prepared	Contract signed and Awarded	NIT floated	Tender document finalized	Tender document drafted
Industrial sector emissions minimized through cleaner production and low emission development practices	6	Develop Energy Efficiency Codes of Practice for Industries	Energy audit reports review for 40 industries carried out by National and international consultants	Status of Work	6	Review of energy audit reports of 40 industries carried out	Contract Awarded	NIT floated	Terms of Reference finalized	Planned and designed the activity
To institutionalize and strengthen Government Performance Management System	5	Strengthen APA Implementation	Timely submission of APA implementation updates	Status of Work	5	On the deadline communicated by GPMD	-	-	-	After the deadline communicated by GPMD
To ensure full utilization of Budget	5	Ensure Annual Budget Utilization	Percentage of annual budget utilization	Percent	5	Greater than 94%	90-94%	85-89%	80-84%	Less than 70%

Transparent, accountable & integrity consciousness and culture strengthened	5	Enhance integrity system by implementing OIP	Integrity score improved	Percent	5	50% of OIP Implemented	40% of OIP Implemented	30% of OIP Implemented	20% of OIP Implemented	Less than 20% of OIP Implemented
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### Section 3: Trend values of success indicators

Objective	Action	Success Indicator1	Unit	Actual Values [FY 2013-14]	Actual Values [FY 2014-15]	Target Values [FY 2015-16]	Projected Values [FY 2016-17]	Projected Values [FY 2017-18]
Access to electricity enhanced	Electrify identified potential off-grid households through grid electrification	Construction of MV line and LV line for the grid electrification carried out	Status of Work	Contract for civil works signed	20% of the MV line and 7% of LV line constructed	50% of the construction of distribution lines and substations completed	100% of the construction of distribution lines and substations completed	Distribution lines, substations and service connections commissioned (1429 households electrified)
Emissions reduced through demand side management of energy	Conduct Research on Renewable Energy and Energy Efficiency	Research on Renewable Energy and Energy Efficiency conducted	Number	NA	1 research study completed	1 research study completed	2 research study completed	3 research study completed
	Develop Energy Auditing and Reporting Guidelines for Industries and Buildings zero draft	Energy Auditing and Reporting Guidelines for Industries and Buildings zero draft prepared	Status of Work	NA	Draft of Energy Auditing and Reporting Guidelines for Industries and Buildings zero prepared	Conduct Training of Trainers ToTs, consultation workshops and meetings	Printing and publications of the Energy Auditing and Reporting Guidelines for Industries and Buildings	Energy Auditing and Reporting Guidelines published and implemented
	Standards and Labeling Scheme for EE Appliances	One appliance certified	Number	Final report submitted to the department	1 appliance certified	Implemented	Implemented	Implemented

Industrial sector emissions minimized through cleaner production and low emission development practices	Develop Energy Efficiency Codes of Practice for Industries	Energy audit reports review for 40 industries carried out by National and international consultants	Status of Work	NA	Reviewed audit reports of 40 industries.	Carry out survey on energy consumption on all HV and MV industries	Conduct awareness on the codes upon approval from the government	Energy Efficiency Codes of Practice for Industries published
Promote clean renewable energy technologies through climate mechanisms	Carry out desktop studies for the Small Hydro Power (SHP) projects identified in Renewable Energy Master Plan.	Desktop studies for SHP projects carried out	Number	Assessment of small hydro potential in 8 dzongkhags completed	Assessment of small hydro potential in 12 dzongkhags completed	Assessment of small hydro potential in 15 dzongkhags completed	Assessment of small hydro potential in 18 dzongkhags completed	Assessment of small hydro potential in 20 dzongkhags completed
	Carry out Feasibility study (FS) for Lunana Hydropower Project	FS for Lunana Hydropower Project conducted	Status of Work	Preparatory works for conducting the FS of the project prepared	FS report prepared and submitted for the Department's approval	Development of the project initiated (Contingent on the availability of the funds)	Development works for the project continued	Lunana Hydropower Project constructed and commissioned
	Collect preliminary data and validate sites for small hydropower projects identified through desktop studies	Preliminary data collected and site validated for the identified SHPs	Status of Work	NA	data collection and site validation for 10 potential sites completed (Contingent to availability of funds and Government's priority)	Contingent to availability of funds and Government's priority, data collection and site validation for 15 potential sites completed	Contingent to availability of funds and Government's priority, data collection and site validation for 20 potential sites completed	Contingent to availability of funds and Government's priority, data collection and site validation for 25 potential sites completed

Promote clean renewable energy technologies through climate mechanisms	Conduct Feasibility Studies for Solar & Wind Power	Feasibility Studies for Wind and Solar PV plant approved by the Ministry	Date	Year round data collection from the data loggers installed in wind and solar masts completed	Feasibility study conducted and final Feasibility Report approved by the Ministry	30% of the installation works completed	60% of the installation works completed	100% of the installation works completed
	Develop National Biogas Implementation Strategy	National Biogas Implementation Strategy endorsed by the Ministry	Date	NA	Final NBIS endorsed by the Ministry	NBIS developed and implemented	NBIS developed and implemented	NBIS developed and implemented
	Install Solar water heating systems	Solar Water Heating Systems (SWHS) installed & commissioned	Status of Work	5 SWHS installed	20 SWHS installed	35 SWHS installed	50 SWHS installed	65 SWHS installed
	Procure Solar Home Lighting Systems (SHLS).	Materials required for Solar Home Lighting Systems procured	Status of Work	NA	Procured 100 sets of SHLS	Procurement of additional sets contingent to the number of requisition received by the department	Procurement of additional sets contingent to the number of requisition received by the department	Procurement of additional sets contingent to the number of requisition received by the department

Promote clean renewable energy technologies through climate mechanisms	Provide professional services to biogas plants (Technical backstopping and monitoring services)	Professional services to biogas plants provided	Number	Technical backstopping and monitoring work for the 70% of the new biogas constructions completed	Professional services (Technical backstopping and monitoring services) provided for 100 Biogas Plants	Professional services provided for 200 Biogas Plans	Professional services provided for 300 Biogas Plants	Professional services provided for 400 Biogas Plants
	Rehabilitate existing solar home systems	O&M for solar home systems carried out	Number	NA	600	1200	1700	2100
	Review, redesign and test Bhutan eco-stove	Bhutan eco-stove reviewed, redesigned and tested	Status of Work	Request for Proposal (RfP) for hiring of the consultant endorsed by the department	Reviewed Bhutan eco stove and final Report on the proposed redesign of the cook-stove submitted to the Department for approval	Provide professional services to Improved Cook Stove (ICS) construction	Provide professional services to Improved Cook Stove (ICS) construction	Provide professional services to Improved Cook Stove (ICS) construction
To ensure full utilization of Budget	Ensure Annual Budget Utilization	Percentage of annual budget utilization	Percent					
To institutionalize and strengthen Government Performance Management System	Strengthen APA Implementation	Timely submission of APA implementation updates	Status of Work					

Transparent, accountable & integrity consciousness and culture strengthened	Enhance integrity system by implementing OIP	Integrity score improved	Percent					
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#### Section 4: Definition of Success Indicators

Success Indicator	Description	Data Collection Methodology	Data Collection Frequency	Data Source
FS for Lunana Hydropower Project conducted	The FS for the development of Hydro Power Plant to electrify the households of Lunana Gewog was carried out by Bhutan Power Corporation Limited (BPC) and the study has established that a Mini Hydropower Plant of installed capacity of 300 kW can be developed. Since further investigations are required to establish the projects viability, a detailed FS shall be carried out in collaboration with DGPC/BPC.	Actual Progress	Annually	DRE, DGPC/BPC
Desktop studies for SHP projects carried out	The assessment for the Small Hydro Plant potential sites will be undertaken through desktop studies for 4 Districts	Actual Progress	Annually	DRE
Preliminary data collected and site validated for the identified SHPs	The potential for Small Hydropower Projects sites under eight Districts were identified through Desktop Studies by use of available topographical maps and hydrological data. Therefore, in order to further validate the findings of the desktop studies, preliminary data collection and site validation of small hydropower projects will be carried for the 10 potential sites.	Actual Progress	Annually	DRE
Bhutan eco-stove reviewed, redesigned and tested	The existing Bhutan Eco-Stove will be reviewed, redesigned and tested for further improvement.	Actual Progress	Annually	DRE

<p>Feasibility Studies for Wind and Solar PV plant approved by the Ministry</p>	<p>DRE has installed solar and wind mast at shingkhar, Yongtru, Rubesa and Gaselo in FY 2018-19. In order to determine the power generation potential and implementation layout, a detailed feasibility study will be carried out in FY 2019-20. The consultant will submit a detailed feasibility report consisting of both technical, economic, environmental and social analysis. DRE will facilitate and coordinate with the consultant in carrying out the feasibility study (FS). The FS shall be reviewed and approved, based on which development of solar PV and wind power plants shall be taken up. Following the FS, the Department will then be exploring and securing the fund for the development of Solar PV and Wind power plant and will eventually begin with the construction from FY 2020-2021 onwards.</p>	<p>Actual progress</p>	<p>Annually</p>	<p>DRE</p>
<p>National Biogas Implementation Strategy endorsed by the Ministry</p>	<p>In order to have an authentic and appropriate implementation strategy for rolling out of the biogas plants across the country, a National Biogas Implementation Strategy will be developed for the smooth and professional transaction of the work.</p>	<p>Actual Progress</p>	<p>Annually</p>	<p>DoL and DRE</p>

Professional services to biogas plants provided	In a bid to enhance the efficiency of the plants and also to facilitate continuity and smooth establishment of the old and new Biogas Plants, the DRE plans to render technical assistance and support by providing our expertise at field levels as and when required to ensure enhanced benefit of these plants to the people. The Department will provide monitor and technical backstopping services to 100 biogas plants.	Actual Progress	Quarterly	DRE
Solar Water Heating Systems (SWHS) installed & commissioned	DRE will be rolling-out the solar water heating system and therefore, will be installing about 15 numbers of solar thermal systems of various capacities targeting different consumers (residential, commercial, institutions). However, this will be subject to approval of the project by Austrian Development Agency.	Actual Progress	Annually	DRE and BPC
O&M for solar home systems carried out	DRE has been continuously providing solar home lighting systems to those beneficiaries who do not have access to the grid. With aid from JFPR, DRE have trained VEEETs across the country and are stationed in their respective villages to carry out bi-annual O&M. An annual O&M contract has been signed with BPC to carry out routine SHS O&M and DRE will monitor the works, make payment to the VEEETs and will also be issuing spare parts required to carry out O&M.	Actual Progress	Annually	DRE and BPC

Materials required for Solar Home Lighting Systems procured	DRE will be procuring around 100 sets of solar home lighting systems for DRE store and will be issued either as new set to the new requests coming from off-grid areas or as a spare part during the annual O&M.	Actual Progress	Annually	DRE and BPC
Research on Renewable Energy and Energy Efficiency conducted	As a continuous effort to explore new technologies, research study will be undertaken for renewable energy and energy efficient technologies. In this FY, national consultant will be hired to conduct the impact assessment for all the awareness program carried out till date The report will be printed and published.	Actual Progress	Annually	DRE
Energy Auditing and Reporting Guidelines for Industries and Buildings zero draft prepared	In order to develop the Energy Auditing Guideline and reporting mechanism for building and industry sectors, international and national consultants will be hired through bidding process which will be carried out in this FY. Draft of the guidelines will be prepared and the work will continue in the FY 2020-2021.	Actual progress	Annually	DRE
One appliance certified	The department in collaboration with Bhutan Standards Bureau will work towards certification of 1 EE appliance. The DRE will facilitate the certification through conducting meetings and consultation workshops with concerned stakeholders.	Actual progress	Annually	DRE

Energy audit reports review for 40 industries carried out by National and international consultants	In order to develop Energy Efficiency Codes of Practice for Industries, international and national consultants will be hired to review the energy audit reports of 40 industries. In this FY, after the review of relevant documents, Energy Efficiency Codes of Practice for Industries shall be drafted and the work will continue in the FY 2020-2021.	Actual Progress	Annually	DRE
Construction of MV line and LV line for the grid electrification carried out	The department in collaboration with BPC have identified 1,429 off-grid households which is potentially viable for on-grid electrification. Therefore, for the FY 2019-20, 20% of Medium Voltage [MV] line and 7% of Low Voltage [LV] line will be constructed. The 20% of MV line constitute 52 km line length out of 254.18 km. The 7% of LV line constitute 15 km line length out of 211.82 km	Actual Progress	Annually	DRE and BPC
Percentage of annual budget utilization	This indicator measures the variance between the Revised Budget and the Actual Expenditure at the end of the FY.	Assessment of variance between annual budget and expenditure	Annually	Department of National Budget
Integrity score improved	This indicator measures the implementation status of Organisational Integrity Plan (OIP) as determined as Anti-Corruption Commission.	Survey and Field Monitoring of OIP implementation by ACC	Annually	ACC

Timely submission of APA implementation updates	This SI shall be evaluated based on the following parameters: 1. Timeline by which "monthly issue/no issue reported on GPMS." 2. Timeline by which "timeline SIs and other achieved SIs are verified and evidence submitted." 3. Timeline by which "MYR and year-end self-assessment report is submitted to GPMD." 4. "Timely action taken on all the MYR directives."	Review of administrative data/documents/records	Quarterly	GPMD
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### Section 5: Requirements from other Departments & Secretariat Divisions

Organisation Name	Relevant Success Indicator	Requirement from the Organisation	Justification for the Requirement	Requirement detail	Impact (If Not Met)
SECRETARIAT	FS for Lunana Hydropower Project conducted	Support from DGPC for carrying out the field investigations	DGPC has required expertise of conducting FS of hydro projects and hence its engagement is vital.	Team of officials from DGPC has to be made available for carrying out the field investigations of the project	If required manpower are unavailable from DGPC then all the FS activities may not be achieved which would mean the project implementations will get delayed.
MINISTRY OF AGRICULTURE AND FORESTS	Professional services to biogas plants provided	The progress for biogas constructed is required from Department of Livestock in a quarterly basis	For the fulfilment of the defined target and necessary implementation of the work	Progress status reports	The target achievement is contingent to the performance of DoL and target may not be fulfilled
MINISTRY OF AGRICULTURE AND FORESTS	National Biogas Implementation Strategy endorsed by the Ministry	Department of Livestock- Inputs on the development of Implementation strategy	For the fulfilment of the defined target and necessary implementation of the work	Implementation details	The target achievement is contingent to the content of inputs provided by DoL and target may not be fulfilled

SECRETARIAT	Construction of MV line and LV line for the grid electrification carried out	BPC- Construction and distribution works for the grid electrification carried out (DCSD, RE)	For the fulfillment of the defined target and necessary implementation of the work	Progress Status Reports	The target achievement is contingent to the performance of BPC and Target may not be fulfilled.
GROSS NATIONAL HAPPINESS COMMISSION	Solar Water Heating Systems (SWHS) installed & commissioned	GNHC need to push for getting the 2nd phase of ACO SWHS project approved by ACO	Smooth facilitation of project implementation and release of budgets from ACO/ADA earmarked towards the SWHS activities proposed under the 2nd Phase	Timely submission of progress reports forwarded by DRE to ACO/ADA to enable timely release of budgets from ACO/ADA.	If the 2nd phase does not get approved, none of the targets for installation of 65 SWHS in 12 Plan can be achieved unless GNHC gets funding from another donor.
BHUTAN STANDARD BUREAU	One appliance certified	Certification Division, BSB to certify 1 EE appliance	Since this activity fall under the mandate of the BSB, DRE will work in collaboration with BSB to certify one EE appliance	Certification for EE appliance	The target achievement is contingent to the input from BSB and the target may not be fulfilled



**Whereas,**

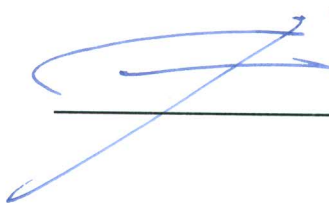
I, the Director, Department of Renewable Energy, commit to the Secretary and the Minister, Ministry of Economic Affairs to deliver the results described in this Annual Performance Agreement.

I, the Secretary, commit to the Director, Department of Renewable Energy to provide necessary support for the delivery of results described in this Annual Performance Agreement.

**SIGNED:**

  
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21.08.2019  
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Date

  
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21/8/2019  
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Date

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