

R F D

RESULTS-FRAMEWORK DOCUMENT

For

MINISTRY OF NEW AND RENEWABLE ENERGY

(2010-11)

SECTION 1:

Vision, Mission, Objectives and Functions

Vision:

- To upscale and mainstream the use of New and Renewable Energy sources in furtherance of the national aim of energy security and energy independence.

Mission:

- Develop, demonstrate and commercialize technologies for harnessing new and renewable energy sources in close concert with corporate, scientific and technical institutions.
- Replace use of different fossil fuels wherever possible, and increase access to electricity/ lighting in remote and rural areas, through Renewable Energy Systems
- Increase the contribution of Renewable Energy in the total energy mix of the country to 6 per cent by 2022, with about 10 per cent contribution to total electricity mix, in line with IEPR projections.

Objectives:

1. To promote deployment of grid-interactive renewable power generation projects to augment contribution of renewables in total electricity mix.
2. To promote renewable energy initiatives for meeting energy/ lighting needs in rural areas
3. To promote renewable energy initiatives to supplement energy needs in urban areas
4. To promote renewable energy initiatives to supplement energy needs in industry and commercial establishments
5. To promote research, design and development activities at premier national institutions and industries on different aspects of new and renewable energy technologies.

6. To encourage development of a Robust Manufacturing Industry in Renewable Energy Sector
7. To take other special initiatives for growth of Renewable Energy sector

Functions:

1. Putting in place suitable policy and regulatory framework at the national and State levels for growth of new and renewable energy sector.
2. Making available necessary fiscal and financial incentives to domestic industry, developers/ investors and users for development/ deployment of:
 - Grid interactive / Off-grid renewable power systems to supplement fossil fuels based electricity generation
 - Standalone RE systems/ devices and services to supplement energy needs of cooking, lighting & motive power in rural areas
 - RE systems and services for urban, industrial & commercial applications
3. Human Resource Development in the new and renewable energy sector.
4. Fostering international cooperation in new and renewable energy sector
5. Information, Publicity, Public Awareness creation in the Renewable Energy (RE) sector.
6. Supporting related Research & Development activities/projects taken up by institutions and industry.
7. Undertaking resource assessment and potential estimation studies for all new and renewable sources of energy.

SECTION 2:

Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Actions	Success Indicator	Unit	Weight	Target/ Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
To promote deployment of grid-interactive renewable power generation projects to augment contribution of renewables in total electricity mix.	19		Capacity created	MW	6	250	225	200	175	150
			During the Year							
		Solar power plants *	250+ (Sanction)							
		Biomass power	455							
		Small Hydro Power	300							
Wind power	2000**									
Total	19		3005		19					

+ On commissioning of 50 MW additional bonus points will be considered.

* Under new initiative of Solar Mission.

** Max. Achievement of 1742 MW was in 2006-07. Critically dependent upon land/ forest clearances, esp. in Karnataka.

Objective	Weight	Actions	Success Indicator	Unit	Weight	Target / Criteria Value				
			Deployment			Excellent	Very Good	Good	Fair	Poor
			During the Year			100%	90%	80%	70%	60%
To promote renewable energy initiatives for meeting energy needs in Rural areas	19	Coverage of Remote Villages No. of villages/hamlets provided with RE systems	1500	Nos.	5	1500	1350	1200	1050	900
		Installation of Family type Biogas Plants - No. of plants installed*	1.50	No. in lakh	3	1.50	1.35	1.20	1.05	0.90
		Installation of Biomass Gasifiers for Village energy supply (in non-RVE areas)	30	No. of villages covered	3	30	27	24	21	18
		Decentralized SPV Systems / Devices	30	MWeq	5	30	27	24	21	18
		Watermills/ Micro-hydel plants	500 (2.5)@	Nos. (MWeq)	2	500	450	400	350	300
		Aero generators/Wind + SPV hybrid systems	75 (0.50)	Nos. (MW)	1	75	67	58	52	45
Total	19				19					

* Mostly Family type plants of 2 cum. digester capacity. Max. Deployment so far during last 8 years has been ~1.5 lakh plants in 2002-03.

@ Deployed so far: 1138 nos. watermills. Maximum deployment has been 214 no. (0.54 MW) during current year (up to 31.1.2010).

Objective	Weight	Actions	Success Indicator	Unit	Weight	Target / Criteria Value				
			Deployment			Excellent	Very Good	Good	Fair	Poor
			During the Year			100%	90%	80%	70%	60%
To promote renewable energy initiatives to supplement energy needs in Urban areas	7	Installation of Solar Thermal systems in urban households/ buildings - total Collectors Area installed	11*	Lakh square meter	6	11	10	9	8	7
		Installation of Urban Waste to energy plants	8**	MWeq	1	8	8	8	8	0
Total	7				7					

* Includes deployment in Industry also.

** 1 on-going project.

Objective	Weight	Actions	Success Indicator		Unit	Weight	Target / Criteria Value				
			Deployment				Excellent	Very Good	Good	Fair	Poor
			During the Year				100%	90%	80%	70%	60%
To Promote renewable energy initiatives to supplement energy needs in Industry and Commercial establishment	12	Installation of SPV systems in industry	5		MW	2	5	4.5	4.0	3.5	3.0
		Industrial Waste-to-energy:	22		MWeq	4	22	20	18	16	14
		Rice husk based power generation in Rice mills	200 (15)		Nos. (MWeq)	3	200	180	160	140	120
		Biomass based power generation in other industries (Paper/ Ceramic etc.)*	80		MWeq	3	80	72	64	56	48
Total	12					12					

* Total installed capacity so far is 90 MWeq. In 2007-08, 18 MWeq capacity was set up.

Objective	Weight	Actions	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
			Achievement During the Year			30	27	24	21	18
To promote research, design and development activities at premier national institutions and industries on different aspects of new and renewable energy technologies.	11	Support New R&D projects in the area of Solar PV,Solar Thermal, Bioenergy, Small Hydro, Wind Energy, Hydrogen Energy / Fuel Cell, Other New Technologies / New Innovations	30	No. of project proposals in each thrust area	11					
	11		30		11					

Objective	Weight	Actions	Success Indicator	Unit	Weight	Target / Criteria Value				
			Production capacity established			Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
To encourage development of a Robust Manufacturing Industry in Solar Energy Sector	5	Incentivize SPV Industry - indigenous modules deployed out of total modules deployed.	80	%	5	80	70	60	50	40
Total	5				5					

Objective	Weight	Actions	Success Indicator	Unit	Weight	Target/ Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
New Initiatives & Management Actions	14	Supporting Centers of Excellence under Solar Mission	3	No. of Centers	2	3	2	2	1	1
		Coverage of Heritage sites with RE systems	25	No. of sites	2	25	22	20	17	15
		Registration of buildings for GRIHA rating	25	No. of buildings	2	25	22	20	17	15
		Incentivizing Banks for financing of RE systems	30	No. of Banks	2	30	27	24	14	12
		Implementation of SPV systems under Ladakh Plan	25	% progress	2	25	22	20	18	15
		Supporting Training Programmes/ Workshops for HRD in RE sector	50	No. of Programs	2	50	45	40	35	30
		Stakeholders consultations	10	No. of Consultation meetings held	2	10	7	5	3	1
Total	14				14					

Objective	Weight	Action	Success Indicator	Unit	Weight	Target/Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
Efficient functioning of the RFD System	5.00	Timely submission of Draft for approval	On-time submission	Date	2.00	05/03/2010	08/03/2010	09/03/2010	10/03/2010	11/03/2010
		Timely submission of Results	On-time submission	Date	1.00	02/05/2011	03/05/2011	04/05/2011	05/05/2011	06/05/2011
		Finalise a Strategic Plan	Finalise the Strategic Plan for next 5 years	Date	2.00	10/12/2010	15/12/2010	20/12/2010	24/12/2010	31/12/2010
Improving Internal Efficiency/Responsiveness/Service delivery of Ministry/Department	6.00	Develop RFDs for all Responsibility Centers(Subordinate Offices, Attached Offices, Autonomous Bodies)	Percentage of RCs covered	%	2.00	100	95	90	85	80
		Implementation of Sevottam	Create a Sevottam compliant to implement, monitor and review Citizen's Charter	Date	1.00	01/10/2010	05/10/2010	11/10/2010	15/10/2010	20/10/2010
			Create a Sevottam compliant system to redress and monitor public Grievances	Date	1.00	01/10/2010	05/10/2010	11/10/2010	15/10/2010	20/10/2010
			Independent Audit of Implementation of Citizen's Charter	%	1.00	100	95	90	85	80
			Independent Audit of implementation of public grievance redressal system	%	1.00	100	95	90	85	80

Objective	Weight	Action	Success Indicator	Unit	Weight	Target/Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
Ensuring Compliance to the Financial Accountability Framework	2.00	Timely submission of ATNS on Audit Paras of C&AG	Percentage of ATNS submitted within due date(4 months) from date of presentation of Report to Parliament by CAG during the year	%	0.50	100	90	80	70	60
		Timely submission of ATRs to the PAC Sectt. On PAC Reports.	Percentage of ATRs submitted within due date (6 months) from date of presentation of Report to Parliament by PAC during the year.	%	0.50	100	90	80	70	60
		Early disposal of pending ATNs on Audit Paras of C&AG Reports presented to Parliament before 31.3.2010	Percentage of outstanding ATNs disposed off during the year.	%	0.50	100	90	80	70	60
		Early disposal of pending ATRs on PAC Reports presented to Parliament before 31.03.2010	Percentage of outstanding ATRs disposed off during the year	%	0.50	100	90	80	70	60

SECTION 3: Trend Values of the Success Indicators

Objective	Actions	Success Indicator	Unit	Actual Value for FY 08/09	Actual Value for FY 09/10	Target Value for FY 10/11	Projected Value for FY 11/12	Projected value for FY 12/13
		Capacity created During the Year						
To promote deployment of grid-interactive renewable power generation projects to augment contribution of renewables in total electricity mix.	Solar Mission power plants	250 sanction	MW	-	8	250	300	542
	Biomass power	455		345	447	455	500	550
	Small Hydro Power	300		249	305	300	350	350
	Wind power	2000		1486	1565	2000	2400	2500

Objective	Actions	Success Indicator	Unit	Actual Value for FY 08/09	Actual Value for FY 09/10	Target Value for FY 10/11	Projected Value for FY 11/12	Projected value for FY 12/13
To promote renewable energy initiatives to supplement energy needs in Urban areas	Installation of Solar Thermal systems in urban households/ buildings - total Collectors Area installed *	11	Lakh square meter	5.6	6.2	11	11	11
	Installation of Urban Waste to energy plants	8	MWeq	0	0	8	10	10

* Includes deployment in industry.

Objective	Actions	Success Indicator	Unit	Actual Value for FY 08/09	Actual Value for FY 09/10	Target Value for FY 10/11	Projected Value for FY 11/12	Projected value for FY 12/13
To Promote renewable energy initiatives to supplement energy needs in Industry and commercial establishment	Installation of SPV systems for diesel abatement in industry	5	MW	0	1	5	5	5
	Industrial Waste-to-energy	22	MWeq	10	20	22	30	40
	Rice husk based power generation in Rice mills	200 (15)	Nos. (MWeq)	24 (9.11)	15 (5.17)	200 (15)	400 (30)	600
	Biomass based power generation in other industries (Paper/ Ceramic etc.)	80	MWeq	76	50	80	80	80

Objective	Actions	Success Indicator	Unit	Actual Value for FY 08/09	Actual Value for FY 09/10	Projected Value for FY 10/11	Projected Value for FY 11/12	Projected value for FY12/13
To promote research, design and development activities at premier national institutions and industries on different aspects of new and renewable energy technologies.	Support New R&D projects in the area of solar PV, Solar Thermal, Bioenergy, Small Hydro, Wind, Hydrogen/Fuel Cell, other New Technologies and new innovations	30	No.	24	29	30	30	40

Objective	Actions	Success Indicator	Unit	Actual Value for FY 08/09	Actual Value for FY 09/10	Target Value for FY 10/11	Projected Value for FY 11/12	Projected value for FY 12/13
To encourage development of a Robust Manufacturing Industry in Solar Energy Sector	Incentivize SPV Industry - indigenous modules deployed out of total modules deployed.	80	%	NM	NM	80	90	90

NM: Not Monitored

Objective	Actions	Success Indicator	Unit	Actual Value for FY 08/09	Actual Value for FY 09/10	Target Value for FY 10/11	Projected Value for FY 11/12	Projected value for 12/13
New Initiatives	Supporting Centers of Excellence under Solar Mission	3	No. of Centers	NA	NS	3	3	3
	Coverage of Heritage sites with RE systems	25	No. of sites	do	do	25	25	25
	GRIHA rating for buildings	25	No. of buildings	do	do	25	30	30
	Incentivizing Rural Banks for financing of RE systems	30	No. of Banks	do	do	30	40	40
	Implementation of SPV systems under Ladakh Plan	25	% progress	do	do	25	60	90
Management Actions	Supporting Training Programmes/ Workshops for HRD in RE sector	50	No. of Programs	do	do	50	50	50
	Stakeholders consultations	10	No. of Consultation meetings held	do	do	10	10	10

NA: Not Applicable; NM: Not Monitored; NS: Not specified.

Objective	Action	Success Indicator	Unit	Actual Value for FY 08/09	Actual Value for FY 09/10	Target Value for FY 10/11	Projected Value for FY 11/12	Projected Value for FY 12/13
Efficient Functioning of the RFD System	Timely submission of Draft for approval	On-time submission	Date	-	-	08/03/2010	-	-
	Timely submission of Results	On-time submission	Date	-	-	03/05/2011	-	-
	Finalise a Strategic Plan	Finalise the Strategic Plan for next 5 years	Date	-	-	15/12/2010	-	-
Improving Internal Efficiency/Responsiveness/Service delivery of Ministry/Department	Develop RFDs for all Responsibility Centers(Subordinate Offices, Attached Offices, Autonomous Bodies)	Percentage of RCs covered	%			95		
	Implementation of Sevottam	Create a Sevottam complaint to implement, monitor and review Citizen's Charter	Date	-	-	05/10/2010		
		Create a Servottam Complaint system to redress and monitor public Grievances	Date	-	-	05/10/2010		

Objective	Action	Success Indicator	Unit			Target Value for FY 10/11	Projected Value for FY 11/12	Projected Value for FY 12/13
		Independent Audit of Implementation of Citizen's Charter	%	-	-	95	-	-
		Independent Audit of implementation of public grievance redressal system	%	-	-	95	-	-
Ensuring compliance to the Financial Accountability Framework	Timely Submission of ATNs on Audit Paras of C&AG	Percentage of ATNS submitted within due date(4 months) from date of presentation of Report to Parliament by CAG during the year	%	-	-	90	-	-
	Timely submission of ATRs to the PAC Sectt. On PAC Reports.	Percentage of ATRs submitted within due date (6 months) from date of presentation of Report to Parliament by PAC during the year.	%	-	-	90	-	-
	Early disposal of pending ATNs on Audit Paras of C&AG Reports presented to Parliament before 31.3.2010	Percentage of outstanding ATNs disposed off during the year.	%	-	-	90	-	-
	Early disposal of pending ATRs on PAC Reports presented to Parliament before 31.03.2010	Percentage of outstanding ATRs disposed off during the year	%	-	-	90	-	-

SECTION 4:
Description and Definition of
Success Indicators and Proposed Measurement Methodology

S. No.	Success Indicator	Unit	Definition	Proposed Measurement methodology
1.	Grid-interactive Renewable Power	MW	Total installed capacity of Grid-connected Renewable Power projects in Megawatt.	<ul style="list-style-type: none"> • Reports of State Utilities/ Central Electricity Authority
2.	Off-Grid Renewable power	MWeq	Total installed capacity of non-grid connected Renewable power projects - generating electrical and/or thermal energy.	<ul style="list-style-type: none"> • Reports of State Implementing Agencies
3.	Coverage of Remote Villages	No.	No. of completed villages - All household provided with Solar Photovoltaic Home lighting Systems OR a common Renewable Power plant installed in the village.	-do-
4	Installation of Biogas Plants	No. in lakh	Number of Biogas plants installed - Mostly Family type biogas plants of 2-5 cum. Capacity (digester size).	-do-
5	Installation of Solar Thermal Systems	Lakh square meter	Total Area of Solar thermal Collectors installed under various types of solar thermal such as solar water heaters and solar cookers.	<ul style="list-style-type: none"> • Report of Indian Renewable Energy Development Agency (IREDA) • Reports of State Implementing Agencies
6	Support new R&D projects	No.	Total number of new R&D project proposals approved for Central Financial Support.	<ul style="list-style-type: none"> • Own records of the Ministry.
7.	Electricity Mix	%	Contribution of Renewable energy in terms of actual electricity generated from all renewable power projects to the total electricity generation in the country	<ul style="list-style-type: none"> • To be computed from the above deployment data and reports of Central Electricity Authority (CEA)/Ministry of Power.

8.	Energy Mix	%	Contribution of Renewable energy (in electrical & thermal forms) to the total energy consumption in the country	<ul style="list-style-type: none"> Do + reports of other Energy Ministries / Planning Commission
9	Development of a Robust Manufacturing Industry in Solar Energy Sector	%	<p>Indigenous SPV modules deployed out of total modules deployed in Grid-interactive SPV power plants</p> <p>Indigenous content in Grid-interactive Solar Thermal Power Plants installed</p>	<ul style="list-style-type: none"> To be estimated from project completion reports to be submitted by developers.
10.	New Initiatives and Administrative Actions	As specified against each initiative/ action		<ul style="list-style-type: none"> Own records of the Ministry.

ABBREVIATIONS

IEPR	-	Integrated Energy Policy Report
RE	-	Renewable Energy
RVE	-	Remote Village Electrification
SPV	-	Solar Photovoltaic
GRIHA	-	Green Rating for Integrated Habitat Assessment
HRD	-	Human Resource Development

SECTION 5:
Specific Performance Requirements from other Departments/ Organizations

The performance under various programmes is critically dependent on other Departments/ Organizations as mentioned below:

- State Govt. Departments/
Implementing Agencies : Policy formulation; submission / clearance of projects; monitoring of implementation, etc.
- Ministry of Environment & Forests : Giving clearance for land transfer for grid power projects in forest areas
- Ministry of Power : Allocation of unallocated power quota to NVVN
Amendment to Electricity Policy reg. Solar specific RPO
- NVVN : Entering into firm PPAs with developers of Solar power projects
- CERC/ SERCs : Fixation of tariffs for Renewable power.

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Place: New Delhi
Date: April, 2010