

1	2
Lakshadweep	16
Manipur*	7
Meghalaya*	44
Nagaland*	3
Sikkim*	98
Uttarakhand*	161
Uttar Pradesh*	137
TOTAL :	49130

*Wind potential has yet to be validated with measurements.

Potential of power generation from renewable sources

3363. SHRI JESUDASU SEELAM : Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state :

(a) the estimated potential of power generation in the country from wind, small hydel, solar and biomass sources;

(b) what is the present installed capacity in the country from various energy sources; and

(c) whether adequate measures have been taken including the increase in share of renewable energy to generate power in tune with India's power potential?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH) : (a) As per various studies undertaken in the past, a potential of about 90,000 MW for power generation from wind, small hydel and biomass sources has been estimated for the country in the medium term (up to 2032). The potential for solar energy has been estimated for most parts of the country at around 30-50 MW per square kilometer of open, shadow free area covered with solar collectors. Resource-wise details are given in Statement (*See below*).

(b) A total power generation capacity of 2,00,037 from various energy sources has been installed in the country as on 31.03.2012, as per the following break-up.

Thermal (Coal/Gas/Oil)	:	1,31,353 MW
Large Hydro	:	38,990 MW
Nuclear	:	4,780 MW
Renewable	:	24,914 MW
		2,00,037 MW

The renewable power capacity of 24,914 MW comprises of 17,353 MW wind power, 3,395 MW shall hydel power, 3,325 MW bio-power and 941 MW solar power.

(c) The Government has taken several measures to increase renewable power generation installed capacity. These include the following :

- * Fiscal and financial incentives, such as, capital/interest subsidies, accelerated depreciation, nil/concessional excise and customs duties;
- * Preferential tariff for grid interactive renewable power in most potential States following the provisions made under the National Electricity Policy 2005 and National Tariff Policy 2006; Uniform guidelines by CERC for fixation of such preferential tariffs being issued every year;
- * Jawaharlal Nehru National Solar Mission initiated in January 2010 to enable large scale capital investment in solar energy applications; Payment Security Mechanism for grid connected Solar Power Projects under the Mission.

As a result, the share of renewable power in total installed capacity from all sources has gradually increased to around 12.5% as on 31.03.2012.

Statement

Estimated medium-term (upto 2032) potential for power generation in the country from solar, wind, small hydro and biomass resources

Sl. No.	Resource	Estimated Potential (in MWeq.)
1.	Solar Energy	30-50 MW/sq. km. ¹
2.	Wind Power	49,000 ²
3.	Small Hydro Power	15,000 ³
4.	Bio-Power :	
	Agro-Residues	17,000 ⁴
	Cogeneration - Bagasse	5,000 ⁵
	Waste to Energy :	
	- Urban / Municipal Waste to Energy	2,600 ⁶
	- Industrial Waste to Energy	1,300
	TOTAL :	89,900 (excluding solar)

MW_{eq} = Megawatt equivalent

Note : Not all of this potential may be suitable for grid-interactive power for technical and/or economic reasons.

- (1) Solar power potential in most parts of the country per square kilometer of open, shadow free area covered with solar collectors.
- (2) Potential based on areas having wind power density (wpd) greater than 200 W/m² assuming land availability in potential areas @ 1% and requirement of wind farms @ 12 ha/MW. **Revised estimate by C-WET is ~ 1,00,000 MW at 80 m. height (un-validated).**
- (3) Technically feasible potential of all sites upto 25 MW station capacity.
- (4) Based on surplus agro-wastes/residues.
- (5) With new sugar mills and modernization of existing ones, technically feasible potential is assessed at 5000 MWe.
- (6) Technically feasible municipal waste-to-energy potential estimated for class-I cities.

Release of pension

3364. SHRI A. ELAVARSAN : Will the Minister of PARLIAMENTARY AFFAIRS be pleased to state :

- (a) The details of pensioners of the Ministry of Parliamentary Affairs (MPA) who have not received their pre-2006 revised pension;
- (b) whether pensioner benefits accruing to pensioners of the Ministry on account of circular dated 1 September, 2008 are not given to them even after a lapse of 7 years;
- (c) if so, the details of such cases, pensioner-wise; and
- (d) what action Government proposes to take for immediate release of revised pension, as per circular dated 1 September, 2008?

THE MINISTER OF STATE IN THE MINISTRY OF PARLIAMENTARY AFFAIRS (SHRI RAJEEV SHUKLA) : (a) to (d) As per Ministry of Personnel, Public Grievances and Pensions (Department of Pension and Pensioners' Welfare) O.M. 38/37/08-P&PW(A) dated 01.09.2008, Pension Disbursing Authorities including Public Sector Banks have been authorised to pay pension/family pension to existing pensioners/family pensioners at the rate prescribed in this O.M. without any further authorisation in the form of Pension Payment Orders from the concerned Accounts Office/Head Office etc. Therefore, the Pension Disbursing Authorities would have already paid the revised pension alongwith arrears.