

**SUMMARY OF THE OFFICIAL SIDE EVENT IN THE DELHI  
INTERNATIONAL RENEWABLE ENERGY CONFERENCE (DIREC)  
AND EXHIBITION, 2010**



**TOWARDS RENEWABLE ENERGY LAW IN INDIA-*Locally Adaptable, Globally Competitive***

**On 28<sup>th</sup> October, 2010**



**Jointly Organized by**



**Enviro Legal Defence Firm**

## I- THE CONFERENCE:

The Delhi International Renewable Energy Conference (DIREC 2010) took place from 27-29 October 2010, in New Delhi, India. The president of India, Pratibha Devisingh Patil, inaugurated DIREC, which convened over 13,000 participants from governments, international organizations, civil society and the private sector to discuss renewables and energy security, climate change and economic development. These themes were explored in plenary sessions as well as in ministerial, multistakeholder and CEO discussions, which followed four tracks: technology and infrastructure; policy; finance; and renewables access and the Millennium Development Goals. ([www.mnre.nic.in](http://www.mnre.nic.in))

Parallel workshops and Official Side Events were also hosted on various issues including: solar power, solar water heating systems; wind energy; sustainable habitats; biomethanation; rural empowerment; smart grid technology; biofuels and clean lighting options and the policy and regulatory environment and the framework to support clean energy development in India. The Enviro Legal Defence Firm (ELDF) and Heinrich Böll Foundation (HBF) jointly organized an official side event titled **“Towards a Renewable Energy Law in India- Locally Adaptable, Globally Competitive”** as part of the Delhi International Renewable Energy Conference (DIREC), on 28th October 2010. The event Chaired by Dr Sunita Narain, Director Center for Science and Environment and member Prime Minister’s Council for Climate Change was primarily meant for decision-makers, regulators, funding agencies, academia, private enterprises and all those interested in strengthening renewable energy governance in India. Those involved in the process of development of renewable energy, participated in the discussions in the official side event for steering an informed discussion on creating an enabling legal and regulatory framework for India.

## II- THE SIDE EVENT ON RENEWABLE ENERGY LAW-A BACKGROUND:

Enviro Legal Defence Firm (ELDF) has been commissioned by the Ministry of New and Renewable Energy, Government of India to prepare a legal framework for the smooth and accelerated growth of renewable energy in India. During the research and after a nation wide consultations with all state renewable development agencies in the country, it is realized that RE growth in India is faced with enormous challenges



(Mr. Sanjay Upadhyay, Advocate Supreme Court, presenting the draft Renewable Energy Law for India. Sitting L-R Mr. Michael Koberlien, Director HBF and Ms Sunita Narain, Chairperson in the Event and member, Prime Minister’s Council for Climate Change)

such as inconsistent and varying implementation of Renewable Portfolio Standards by the states, varying or absence of any renewable portfolio standards in few states, poor enforcement measures, complex clearance mechanisms, difficult land allocation systems and lack of civil society participation. More pressing issues such as building RE equipment manufacturing capacity within the country, creating a facilitative, market oriented, pro-poor yet competitive environment that can sustain the energy contribution from renewable resources. Needless to mention that these concerns need immediate and streamlined initiatives and probably through a legal instrument. Also international experience has revealed that for smooth and consistent RE growth, reliable legal and regulatory framework is quintessential and has a more certain status than a collection of policies, mission and programs which is the case in India. It is with this background that a dedicated side event on the need for having a RE law in India was organized to steer the discussion among policy makers and all those who are concerned with RE growth and development in India.

## III- DESIGN AND PREPARATION OF THE SIDE EVENT:

**Preparation of the Background Note:** In order to facilitate the participants with the concept and background of the side event on the Renewable Energy law, a comprehensive background note was prepared. A through research was done to summarize India’s current status on national initiatives and international commitments on climate change and clean

was also distributed in hard copy as Flyer during the side event proceedings and had a comprehensive summary of the scenario on Renewable Energy in India and challenges posed by climate change. In the note, rationale and the need for steering a nation wide Discussion on RE law was expressed. **(See Annex-1 and 2 for the Background Note and an illustrative list of participants respectively).**

#### **IV- INVOLVING EXPERTS FROM DIVERSE BACKGROUNDS:**

In order to have a holistic perspective on all the aspects that are important for renewable energy development and promotion, experts from diverse background were contacted and the focus of the side was shared with them. The experts were requested to present their view - point from the policy and legal perspective and whether they felt that the present regulatory framework is good enough for accelerated renewable energy growth. The experts that presented their views included Mr Sanjay Upadhyay, Advocate Supreme Court of India and Managing Partner, Enviro Legal Defence Firm (on the legal framework for renewable energy development, Dr. Michael Koeberlein, Director Heinrich Böll Foundation, India (International perspective and the German experience); Mr. Surya Sethi, former Principal Adviser (Power & Energy), Planning Commission (Government perspective), Mr. Anil Patni, Head of Communications and External Affairs, Tata B.P. Solar (Business Perspective) , Stefan Gsanger, Secretary General of World Wind Energy Association (International perspective) and Ms Sunita Narain, Director Center for Science and Environment and member Prime Minister's Council for Climate Change. **(See Annex-3 for the Agenda of the Side Event and the list of experts who spoke in the workshop).**

#### **V- SIDE EVENT PROCEEDINGS:**

**1. Inaugural and Welcome:** Dr. Michael from HBF welcomed the Chair, the speakers and participants from diverse background who attended the side event on the Renewable Energy Law. While welcoming those present in the session, Dr Michael emphasized that there a need for steering a more informed debate and discussion on the renewable energy law that India should have.

#### **2. Key points from the Presentation-I: (Presentation**

energy. The Background Note was sent to all the list serves in advance with the official invite for the Side Event. The Note

Mr Sanjay Upadhyay, Advocate Supreme Court of India made the key presentation on the draft renewable energy law that is under consideration by the Ministry of New and Renewable Energy. Following are the salient features of the draft Renewable Energy law in progress:

The objectives of the proposed RE law are to:

- *accelerate the promotion, utilization, development and exploration of renewable sources of energy*
- *facilitate sustainable development of energy supply*
- *safeguard energy security, ensure that energy development is ecologically sustainable*
- *promote the further development of technologies for the generation of electricity from renewable energy sources*
- *provide a framework for the establishment and administration of electricity generation from the renewable sources*

There is a greater role of the Central Government as it would be responsible for

- Distributed Renewable Energy and obligation to supply RE in rural areas
- Generation of RE
- Administration of RE

The administrative mechanism proposed in the law is at three levels- National Level: a) MNRE b) Creation of NARE

State Level a) Concerned State Government b) SARE- Reconstitution of SNAs

District Level: a) Creation of DREC, b) Urban Local Body level  
c) Mohalla/Resident Renewable Energy Committees d) Village Level

Gram Urja Committees

- Exemptions from environmental compliance for DRE Projects
- Creation of National Renewable Energy Technical Institute (NRETI)
- Kerosene continues to remain the main source of lighting for rural households with 50 percent of the household depending on Kerosene for lighting
- For 86% of the rural households, the main energy for

### on Renewable Energy Law framework)

Further, the law has more promotional features:

National Policy on Renewable Energy Efficiency Projects

- Tariff Principles, CDM
- Renewable Energy Fund
- Central Financial Assistance
- Initiatives for International cooperation

Measures against offences

- Promotional measures-*registration of RE equipment manufacturers, RPO, REC, open access, wheeling, feed in tariffs, preference to RE sources of energy*

(See Annex-4 for the presentation on RE Law)

### 3. Presentation by Mr Srinivas Krishnaswamy of Vasudha Foundation

Mr Srinivasan explained his views on what should the future legislation on RE should address. He said the RE legislation should

facilitate sustainable development of energy supply

safeguard energy security, ensure that energy development is ecologically sustainable

Ensure Energy Access for all, particularly in rural India – with energy going beyond the light bulb

Link Energy to poverty alleviation – development with equity particularly from a rural Indian context

He also gave a brief overview of Glimpse of Rural Electrification In India

Over 54% of the rural households in India yet to be electrified

Only 3 states of India have less than 25% of households with no electricity access, while the remaining 24 states have un-electrified households ranging from 25 to as high as 90 percent

Some examples do exist, but we need more.

The financial sector also needs to be reformed to ensure

cooking comes from traditional

- bio-mass, which is wood chips and Cow dung cakes and only 5% have access to LPG for cooking in rural areas
- In Electrified households in rural areas, power supply varies from 2-16 hours a day.

He explained as to what could be done to promote Equitable Energy Supply- the following are the suggestions:

More concerted efforts towards Distributed Renewable Energy and obligation to supply RE in rural areas

- A detailed resource mapping of renewable energy resources within geographic areas – involvement of communities in resource mapping
- A detailed cost economics of what works best in a said geographic area – centralised Grid Supply Vs. Decentralised Renewable Energy Options – also addresses the issue of price barriers
- Holistic planning of energy access – Going “Beyond the Light Bulb”
- Linking energy to both social development as well as economic development
- Involvement of communities in energy supply design – at the very least a proper need based assessment of energy requirement – goes hand in hand with resource mapping
- Better coordination of various agencies, ministries, departments and organisations involved in rural energy supply – key is to ensure that it is holistic and not compartmentalized as “Poverty Alleviation” “Energy Supply” and so on
- More often than not Renewable Energy systems are treated as stop gap arrangements – need to make them reliable and sustainable – institutional and policy frameworks
- develop regulations and technical standards to ensure that decentralised renewable energy systems are definitely reliable and even more reliable than centralised grid systems.
- Create business models for decentralised renewable energy systems – goes beyond the “subsidies market”

The legal framework that has been discussed in the event does not offer anything new. The provisions that have been framed do find mention in the current framework as well. The

that there is proper and adequate financial assistance which is provided to communities who wish to undertake such projects.

- There is an immediate need for rationalization that implements the existing one.

electricity tariffs and to apply the principle of “Polluter Pays”, with incentives on tariffs being given to those who consume less and who opt for renewable energy sources.

#### **4. Key points by Mr Anil Patni, Tata B.P Solar (Business perspective)**

Mr Anil Patni, explained the issues related with technology and deployment of solar equipments. Cost related issues, issues on feed in tariff, RPOs and transmission and distribution. He said that there is a need to promote healthy competition in the sector and develop renewable energy technologies in the country that will reduce the cost.

#### **5. Key points by Mr. Surya Sethi, former Principal Advisor (Power & Energy), Planning Commission (Government perspective)**

There is a requirement for more source not more shops

We need more enlightened leaders and not many laws

The key element is access to energy. If any law can provide and ensure access, then such law is required

We have so many laws in this country, however, implementation is weak. Thus for example we have laws against child labor, environment pollution and so forth but we still find child prevalent, environment degradation happening at a faster rate.

China is a good example to look at. It has no case law, no dedicated law to regulate foreign direct investment; still it has the highest foreign direct investment in the world, as it has leaders to think like that, not the laws.

We need to understand that countries that have laws, what kind of laws are there. They have laws to regulate RPOs, targets, standards and so forth.

institutional framework to address renewable energy promotion is already there in the country.

There is a need to bring cohesion among various institutions in the country for renewable energy development and promotion.

#### **6. Key points discussed by Stefan Gsanger, Secretary General of World Wind Energy Association (International perspective):**

Market competitiveness is the key to RETs

There is a need to examine and understand the reasons behind success of wind energy in India

The country policy framework is facilitative enough, however whether it is enough has to be examined.

The international practices and examples in other countries where RE is a success have to be understood and examined closely.

**7. Open House:** The house was open for questions to the expert speakers and remarks by the participants. Interesting interventions were made. Some of these are presented below

One of the participant asked about the concept of community and how it is understood for RE projects

How will the community own and operate when the community do not have sufficient know how.

How do we reduce the technology cost

Whether there are plans to promote domestic technologies

These queries were answered by the respective speakers

#### **8. Remarks by the Chairperson: Ms Sunita Narain**

Ms Sunita Narain summarized the key presentations and points discussed in the event.

She said question of accessibility is something which is the key.

Right to energy should be made the basis to draft the law

If any law is required in this country, it is the law ensuring the access to energy resource and energy itself

We need to think what kind of law is required by India and what should be the focus.

The views presented today, will prove useful for rethinking on the legal framework that has been placed before the MNRE.



**DIREC 2010**

**Side Event on**

## **TOWARDS A RENEWABLE ENERGY LAW IN INDIA**

*Locally adaptable, globally competitive*



**Enviro Legal Defence Firm**



**HEINRICH BÖLL FOUNDATION**

### **INDIA: RENEWABLE ENERGY CONTEXT:**

India is one of the fastest growing renewable energy markets in the world today. The investment on solar energy alone is expected to reach 20 billion U.S. dollars by 2011. However, it is estimated that financing India's ever growing energy demand will require \$1.25 trillion investment in energy infrastructure till 2030.

India's 11th Five Year Plan calls for 80 GW of new electric power to be built between 2007 and 2012; a figure which includes 14 GW from renewable energy.

Oil dependence, increasing demand for both power and transport represents additional challenges India's energy situation is, therefore, precarious and all top-level decision-makers recognize the important role that alternative energy must play.

### **INDIA: RENEWABLE ENERGY CHALLENGES AND TRENDS-climate concerns, energy security and environment protection**

Climate concerns, growing economy, large population, rising energy demands, employment challenges and the obligation to bring hundreds of millions out of poverty are the challenges that the India is faced with today. Renewable energy could play a significant role in meeting these challenges.

Currently India is ranked fourth globally for installed wind capacity as well as second for biogas generation. At the same time, there are immense untapped small hydro resources in north India, and the country is on its way towards global leadership in solar power generation with "Solar India"-the only country to have a dedicated National Solar Mission at a massive scale.

### **CURRENT RENEWABLE ENERGY POLICY ENVIRONMENT**

Recent policy initiatives taken by the Ministry of New and Renewable Energy, especially with regard to Renewable Energy Portfolio Standards (RPS-mandatory renewable energy targets) and tariff fixation by the Central Electricity Regulatory Commission and the launching of the Jawahar Lal Nehru National Solar Mission indicate that there is a dynamic and positive policy environment in India to promote renewable energy development and investment.

### **NEED FOR THE RENEWABLE ENERGY LAW**

India being the only country to have a dedicated ministry, the Ministry for New and Renewable Energy for renewable energy promotion since 90's, however, does not have a national renewable energy policy or law. The current renewable energy framework comprises number of initiatives including policy statements, regulations, programmes, missions and schemes. Besides, a number of ministries and departments have been taking standalone initiatives in promoting different RE sources. National Biofuel Mission by Ministry of Science and Technology in coordination with Ministry of Agriculture and National Biofuel Policy by MNRE are classic examples of such initiatives.

RE growth in India is also faced with enormous challenges with inconsistent and varying implementation by the states, varying or absence of any renewable portfolio standards, poor enforcement measures, complex clearance mechanisms, land allocation systems and lack of civil society participation. More pressing issues such as building RE equipment manufacturing capacity within the country, creating a facilitative, market oriented, pro-poor yet competitive environment that can sustain the energy contribution from renewable resources are some of the other important concerns that need immediate and streamlined initiatives and probably through a legal instrument.

From the international experience where RE has been a success, it is realized that for smooth and consistent RE growth, consistent legal and regulatory framework is quintessential and has a more certain status than a collection of policies, mission and programs which is the case in India. Needless to say, legal framework provides for a clear legal mandate for RE promotion and development to guarantee investment certainty and project viability, therefore the need for a very clear, consistent and long term renewable energy legal and regulatory framework for India.

**THE SIDE EVENT:** It is with view that a side event "**Towards a Renewable Energy Law**" is being organized jointly by ELDF and HBF at the Delhi International Renewable Energy Conference, 2010. As the Central Government is considering the possibility of an enabling legal framework for India and where ELDF has contributed in the process of thinking through such a legislation. It is hoped that the discussions in the event will enable sharing of views among the experts involved in the drafting of RE law and other stakeholders, and will provide inputs for formulating a strengthened RE law framework in the country.

**Annex-1 (above)**

**Annex-2**

**DIREC- List of Invitees**

<b>S. No</b>	<b>Participant</b>	<b>Designation</b>	<b>Contact Details</b>	<b>Organization</b>	<b>Sector</b>	<b>Place</b>
1.	Debashish Majumdar	Chairman and Managing Director	24682201 / 24682211 Extn. 113	IREDA	Autonomous	Delhi
2.	Dr. Kirit S. Parikh	Member (Energy)	2309 6568, 2309 6666/ 96 Extn. 2145 kirit.parikh@nic.in	Planning Commission	Government	Delhi
3.	Sunita Narain	Member		Solar Mission, NAPCC	Government	Delhi
4.	Jyoti Parikh	Director	011-2649 5522 /5564 6622 jparikh@irade.org	IRADE	NGO	Delhi
5.	Mr. Ajay Prakash Shrivastava	President	prakash@maharishi.net president@sesi.in	Solar Energy Society of India (SESI)	Organization	Delhi
6.	Mr. Jagat S. Jawa	Director General		Solar Energy Society of India (SESI)	Do-	Do-
7.	Amit Kumar	Director Energy- Environment Technology Division/REEEP	24682100/ 41504900 akumar@teri.res.in	TERI	NGO	Delhi
8.	Varghese Paul	Associate Fellow & Area Convenor Forestry & Biodiversity		TERI	NGO	Delhi
9.	Mikul Bhatia		mbhatia2@worldbank.org	World Bank	International	Delhi
10.	Paramjit S. Dhingra	Power Engineer South Asia Energy & Infrastructure		World Bank	International	Delhi
11.	Robert Donkers	First Counsellor Environment	24629237 <a href="mailto:robert.donkers@ec.europa.eu">robert.donkers@ec.europa.eu</a>	EU	International	Delhi
12.	Mr. Neeraj Kanwar	Director		Chevron Pvt. Ltd.	Private	Delhi

13.	Mr. Shailendra Shukla		(M) 9425205897	CREDA		
14.	Mr. Ghan Chaudhary	Chairman		WBREA		
15.	Mahesh Zagade	Director General		Maharashtra Energy Development Agency (MEDA)		
16.	Ms. Kamalina Sen and Mr. Vinaya Bansal	Senior Consultants		Emergent Ventures India Pvt. Ltd.	(CDM Consulting Company)	Gurgaon, Haryana
17.	Mr. Alok Mishra	Marketing Manager		Suzlon Energy Ltd.		
18.	Ms. Geeta Vaidyanathan			CTx		
19.	Mr. Rangan Banerjee	Professor, Department of Energy Science and Engineering	Office, Room NO.-203A, Phone: +91-22-2576 7883 (off.) +91-22-2576 8883 (home)	Mechanical Engineering Department, I.I.T. Bombay	Academia	Bombay
20.	Ms. Sujata Gupta			ADB	Organisation	Delhi
21.	Ms. Rupa Devi Singh	CEO	3rd floor, 'B' wing, Exchange Plaza, Bandra Kurla Complex, Bandra (East) Mumbai 400051 TEL : +91 22 26530500 Email : info@pxil.co.in	Power Exchange India Limited	Private Sector	Mumbai
22.	Aseem Sharma	CEO	1st Floor, Technopolis DLF Golf Club Road Sector 54 Gurgaon 122002 Haryana	Sunborne Energy Technologies	Private Sector	Gurgaon
23.	Anil Patni			TATA BP Solar		
24.	Priya Ghosh	Scientific Affairs Assistant	Embassy of US, Shantipath, New Delhi	Embassy of USA		
25.	Jadhav		1, Ambegaon (bk.), Katraj-Dehu Road Bypass, Pune-411046	Machinocraft		

			(O) 022-24317400			
26.				WISE		
27.	Rima Yadav	Policy Advisor-Energy and Environment	6-50F, Shantipath, Chanakyapuri <a href="http://www.hollandindia.org">www.hollandindia.org</a> (011)- 24197640	Royal Netherlands Embassy		
28.	Ajit Gupta			Retd MNRE		
29.	Dr. Nitya Khemka	Director		Nand and Jeet Khemka Foundation and the Nabha Foundation	NGO	
30.	Lavanya Rajamani	Professor		Centre for policy research		
31.	Sanjay Sen	Lawyer				
32.	Malini Mehra	CEO		Centre for Social Markets		
33.	Fergus Auld	First Secretary, Climate Change & Energy Unit		British High Commission- DFID, India.		
34.	Natacha Monnet	Attache Economique	Mission Economique 2/50 E, Shantipath, Chanakyapuri New Delhi	Ambassade de France en Inde		
35.	Thomas Haahr	First Secretary	Royal Danish Embassy New Delhi (011)- 42090700			

**Annex-3**

**Delhi International Renewable Energy Conference, 2010, Official Side Event**  
**TOWARDS RENEWABLE ENERGY LAW IN INDIA-*Locally adaptable, globally competitive***

Date: October 28, 2010

Time: 5.30-7.00 P.M.

Venue: Hall No. 4, Narmada

**Agenda for the Side Event**

**Chair:** Ms Sunita Narain, Director, Centre for Science and Environment (CSE)

**Sessions (5.30-7.00 p.m.)**

<b>What</b>	<b>When</b>	<b>Who</b>
Introduction	5.30 -5.35	Michael Koeberlein, Director Heinrich Böll Foundation, India
Legal Perspective	5.35-5.50	Sanjay Upadhyay, Advocate Supreme Court of India and Managing Partner, Enviro Legal Defence Firm
Government perspective	5.50-6.05	Surya Sethi, former Principal Adviser (Power& Energy), Planning Commission
Business perspective:	6.05-6.320	Anil Patni – Head of Communications and External Affairs, Tata B.P. Solar
Global perspective:	6.20-6.35	Stefan Gsanger, Secretary General of World Wind Energy Association
Interaction with the participants	6.35-6.45	All the participants
Remarks by the Chair and the way forward	6.45-7.00	Ms Sunita Narain, Director, Centre for Science and Environment (CSE)

## Annex-4 –Presentation on the Draft Renewable Energy Law

### Renewable Energy Resources and Development Bill, 2009-A *presentation of the Draft law in progress*

Sanjay Upadhyay  
and Shawahiq Siddique  
Enviro Legal Defence Firm  
May 2009



### *Focus of the Renewable Energy Resources and Development Act, 2009*

An Act to –

- accelerate the promotion, utilization, development and exploration of renewable sources of energy
- facilitate sustainable development of energy supply
- safeguard energy security, ensure that energy development is ecologically sustainable
- promote the further development of technologies for the generation of electricity from renewable energy sources
- provide a framework for the establishment and administration of electricity generation from the renewable sources



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### Highlights of the Renewable Energy Resources and Development Act-2009



- Role of Central Government
- Distributed Renewable Energy and obligation to supply RE in rural areas
- Generation of RE
- Administration of RE

#### National Level:

- a) MNRE
- b) Creation of NARE

#### State Level

- a) Concerned State Government
- b) SARE-Reconstitution of SNAs

#### District Level

- a) Creation of DREC,  
Urban Local Body level  
Mohalla/Resident Renewable Energy Committees

#### Village Level

- a) Gram Urja Committees

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### Highlights of the Renewable Energy Resources and Development Act-2009



- Exemptions from environmental compliance for DRE Projects
- Creation of National Renewable Energy Technical Institute (NRETI)
- Promotional measures-*registration of RE equipment manufacturers, RPO, REC, open access, wheeling, feed in tariffs, preference to RE sources of energy over others etc*

Further, more promotional features:

National Policy on Renewable Energy Efficiency Projects

- Tariff Principles, CDM
- Renewable Energy Fund
- Central Financial Assistance
- Initiatives for International cooperation
- Measures against offences

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(contd.)



## Role of the Central Government



- Central Government to notify National Renewable Energy Policy and Tariff Policy (section 3)
- Central government to notify National Renewable Energy Plan once in five years (section 3(2))
- Central Govt. to formulate a National Policy on DRE and obligation to supply RE in rural areas in consultation with the concerned State Govts and SARE. (Section 4)
- Appropriate Government to endeavor to supply electricity to all villages and Hamlets
- Appropriate government to notify a Rural Renewal Energy Plan under the supervision of SARE
- Rural Renewable Energy Plan to be prepared in consultation with the Gram Urja Committees

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## Facilitating Generation of RE

- Generation to be free from licensing. (Section 5)
- Captive Generation to be free from controls. Open access to Captive generating plants subject to availability of transmission facility. (Section 5(2))
- Open access to be regulated by the Central or State Transmission Utility (5 (2))
- RE generating company to establish, maintain, operate RE plant as per the provision under this Act (section 5)
- Generating companies shall be allowed to supply RE to any licensee under this Act

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## Administrative Mechanism under the Act-a framework for accelerating RE resource utilization in country



### National Level

- The Central Government to-
  - develop regulations and technical standards
  - Facilitate finance for renewable resource projects
  - Collect and create a repository of National and State Resource Maps based on the availability of each renewable energy resource.
  - Facilitate foreign investment in Renewable energy Resource Projects
  - Facilitate technology exchange
  - Promote research and development on renewable energy resource development and dissemination.

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## Administrative Mechanism..... (Contd.)



### The National Authority on Renewable of Energy ( NARE) -

#### Constitution:-

- Five ex officio members of MNRE
- Three appointed members of the CERC;
- Two members from the Ministry of Power
- Two non official experts nominated by the Central Government

#### Functions:-

- Approve of the renewable energy feed-in tariff policy of the Central Government within 30 days of publication
- Set the minimum percentage of generation from renewable energy resources and determine Renewable Portfolio Standard (RPS)
- Set national levels for Renewable Energy Purchase Obligations and at a minimum for setting renewable portfolio goals for 2015, 2025, and 2050.

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## Administrative Mechanism..... (Contd.)



- Develop and administer the Green Energy Certificate Program as may be prescribed
- Coordinate with Ministry of Power and CERC to ensure reasonable and preferential access for renewable energy projects to connect to the grid for electricity
- Coordinate with Ministry of Power and CERC to develop regulations for open access, interconnection standards and inter-state transmission
- Recommend exemptions on environmental law compliance to MoEF in the manner prescribed.

#### Powers of NARE

- To hear appeals against decisions made by the SARE or between two SAREs
- To hear and adjudicate disputes between two SERCs in case of renewable energy open access, transmission and distribution and trading

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## Administrative Mechanism- State Level



### State Authority on Renewable Energy (SARE)-

#### ▪ Constitution

Existing State Nodal Agencies (SNAs) in each state shall be reconstituted as State Authority on Renewable Energy (SARE) consisting of

- i) three appointed members of the existing SNAs;
- ii) two appointed members of the SERC
- iii) two non official experts appointed by the State government

#### ▪ Functions

- Implement regulations and technical standards as determined by the Central Government through the Ministry of New and Renewable Energy

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## Administrative Mechanism- State Level.....(Contd.)



- Determine state specific feed in tariffs
- Develop and disseminate state wide resource maps for each renewable resource and also furnish to the MNRE in the Central Government in a prescribed format.
- Grant renewable energy resource licenses to generating companies and persons for transmission, distribution and trading electricity from Renewable resources as may be prescribed
- Facilitate technology exchange on renewable energy development
- Consolidate State Renewable Energy Plans especially for the rural areas
- Administer the Green Energy Certificate Program at the state level as may be prescribed.

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## Administrative Mechanism- State Level ....cot



- Coordinate with Department of Power by whatever name called and SERC to ensure reasonable and preferential access for renewable energy projects to connect to the grid
- Develop and publish interconnection standards for renewable energy projects
- Set higher minimums for Renewable Energy Purchase Obligations for their respective states
- Ensure the compliance of specified standards.
- Enforce compliance of the Act.

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## Administration of RE -District Level



### District Renewable Energy Committees (DREC) & Mohalla/Resident Renewable Energy Committee (RREC)

#### ▪ Constitution:

- i) To be headed by the Collector
- ii) three officials and three non officials/qualified experts on renewable energy

#### ▪ Functions:

- Identify areas requiring electrification and other forms of energy
- Assess the potential for connecting those areas to the national grid
- Consult and collaborate and support Gram Urja Committees to develop sustainable distributed generation projects.
- Aid in the implementation of home renewable energy initiatives including education, and technical outreach.
- To guide and train Gram Urja Committee for establishing, operating, running and maintaining a renewable energy plant.

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## Administration of RE-Village Level



### Gram Urja Committee (GUC)

#### Composition:

- Minimum five and not more than twelve members including the *Sarpanch* and a woman member of the Panchayat
- **Functions**
- Establish, operate, run and maintain renewable energy plants or establishing and managing renewable energy generating sites on their own or in collaboration with developers or other Gram Urja Committees.
- Specifically promote biomass based energy systems; energy plantations for fuel, in collaboration with the State Forest Department for forest land as well as the Panchayats for Panchayat lands;

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## Exemptions from Environmental Compliance –A *mechanism to stimulate Promotion of Distributed RE Generation*



- Exemption on charges on forest land such as NPV and Compensatory Afforestation on the recommendation of NARE
- DRE projects to be exempted for EC and CRZ by the MoEF on the recommendation of NARE
- Exemptions not without ensuring proper safeguard to critical wildlife habitats, ESAs and Critical Tiger Habitats, CRZ I areas and Biodiversity heritage sites

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## National Renewable Energy Technology Institute- *one stop shop for RE research and development*



- National institute to carry out research and development on RE potential and technology
- **Core functions:**
  - shall initiate a comprehensive program to re-evaluate the potential of grid-connected renewable electricity generation in the country to assess the contribution of the energy mix from the renewable resources by 2025.
  - Carry out a comprehensive survey of RE potential state wise and preferably district wise and site specific with the help of SARE, DREC and other expert agencies and publish the same for potential use by developers and generating companies.
  - Carry out research and development, technical outreach and financial information regarding each renewable energy technology.

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## NRETI- (Contd.)



- Facilitate technology exchange between states and international agencies and institutions.
- Develop global technical standards for respective renewable energy technology.
- Publish the standards on its website and/or in any other appropriate form so as to make the standards available to developers and potential developers.
- Review and publish updates to all technical standards from time to time and at least every two years.
- Constitute specialized Technology Committees including national and international experts, on each Renewable Resource, to advise and guide the NRETI.

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### Other Promotional measures under the Act



- Registration of Manufacturers, Fabricators and Suppliers of Locally-Produced Renewable Energy Equipment
- Renewable Energy Purchase obligation-every person to meet RPO standards and requirement except captive generating plants for community purposes
- Renewable Energy Credits-creation, banking, redeeming, sale of RECs to be regulated by the NARE and SARE
- Facilitative provisions on -Open transmission, wheeling, feed in tariffs
- Preference to RE source energy over conventional source for better level playing field
- Generation based support to Private Developers

18

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18

### Facilitative Provisions on Off Grid Projects



- Off Grid projects to be exempted from licensing
- Off Grid shall get RECs

#### **Renewable Fuels**

- NRETI to develop standards for RE fuels
- License required for RE fuel production
- RE Fuels produced and consumed at the same source do not require production license subject to fulfillment of technical standards
- Selling of fuel in accordance with the standards and prescriptions set by NARE and SARE

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### Incentivizing RE Resource promotion and development



- Biomass
- Government to facilitate land, including forest wasteland,
- Exemptions from NPV or CAMPA
- Sale of RE fuel to be done in consultation with GUCs ,the principle of primary beneficiary to be applied
- MNRE to develop a national Policy on RE efficiency projects

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## Creation of Renewable Energy Fund



- REF to receive money through cess levied on conventional energy producers or users including measures such as premium on industries or corporations through public liability, by appropriate legislation or amendment or directive by the Central or State Government.
- Any cess, fees, grant leviable under this Act shall be credited to REF
- Collection of Administrative and criminal penalties shall be credited to REF
- The REF to be applied for future growth, research and development of RE

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## Other Progressive features



- Increased emphasis on International cooperation on RE development
- Enabling the Central Government to create and form the Appellate Tribunal for RE
- No other Civil Court to have jurisdiction
- Members including non officials of RE based govt. institutions to be treated as government servants.
- Deterrents for unethical practices or for taking undue advantage!

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**THANK YOU**



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## Annex-5 Presentation by Mr Srinivas Krishnaswamy

### ENERGY FOR OUR COMMON FUTURE

Key Ingredients for a  
Renewable Energy Law for India  
- Locally Adaptable, Globally  
Competitive and addresses  
Energy Access for all

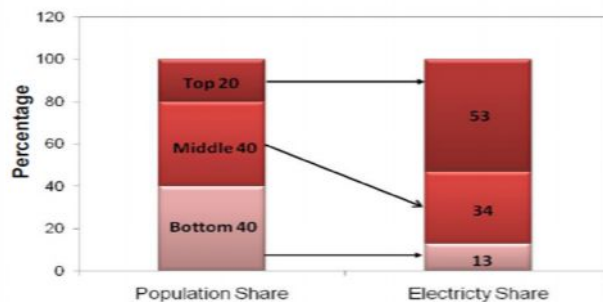
Srinivas Krishnaswamy  
Vasudha Foundation

### Key Elements

- *facilitate sustainable development of energy supply*
- *safeguard energy security, ensure that energy development is ecologically sustainable*
- *Ensure Energy Access for all, particularly in rural India – with energy going beyond the light bulb*
- *Link Energy to poverty alleviation – development with equity particularly from a rural Indian context*

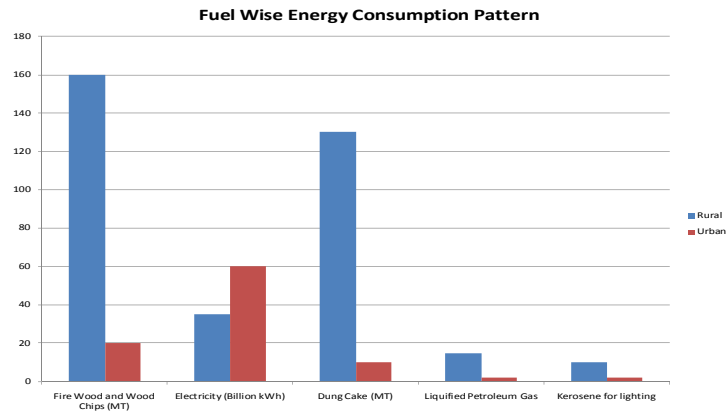
### Energy and Development - Equity

Distribution of Electricity Consumption by Income Class

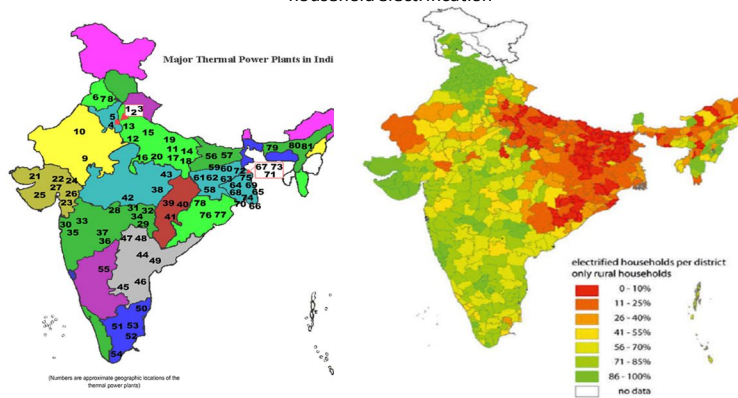


### Glimpse of Rural Electrification In India

- Over 54% of the rural households in India yet to be electrified
- Only 3 states of India have less than 25% of households with no electricity access, while the remaining 24 states have un-electrified households ranging from 25 to as high as 90 percent
- Kerosene continues to remain the main source of lighting for rural households with 50 percent of the household depending on Kerosene for lighting
- For 86% of the rural households, the main energy for cooking comes from traditional bio-mass, which is wood chips and Cow dung cakes and only 5% have access to LPG for cooking in rural areas
- In Electrified households in rural areas, power supply varies from 2-16 hours a day.



Comparative Map of India with Thermal Power Plants and level of household electrification



### Equitable Energy Supply- What needs to be done

- More concerted efforts towards Distributed Renewable Energy and obligation to supply RE in rural areas
- A detailed resource mapping of renewable energy resources within geographic areas – involvement of communities in resource mapping
- A detailed cost economics of what works best in a said geographic area – centralised Grid Supply Vs. Decentralised Renewable Energy Options – also addresses the issue of price barriers
- Holistic planning of energy access – Going “Beyond the Light Bulb”
- Linking energy to both social development as well as economic development
- Involvement of communities in energy supply design – at the very least a proper need based assessment of energy requirement – goes hand in hand with resource mapping
- Better coordination of various agencies, ministries, departments and organisations involved in rural energy supply – key is to ensure that it is holistic and not compartmentalized as “Poverty Alleviation” “Energy Supply” and so on

### Equitable Energy Supply- What needs to be done

- More often than not Renewable Energy systems are treated as stop gap arrangements – need to make them reliable and sustainable – institutional and policy frameworks
- develop regulations and technical standards to ensure that decentralised renewable energy systems are definitely reliable and even more reliable than centralised grid systems.
- Create business models for decentralised renewable energy systems – goes beyond the “subsidies market” – some examples do exist, but we need more.
- The financial sector also needs to be reformed to ensure that there is proper and adequate financial assistance which is provided to communities who wish to undertake such projects.
- There is an immediate need for rationalization of electricity tariffs and to apply the principle of “Polluter Pays”, with incentives on tariffs being given to those who consume less and who opt for renewable energy sources.

This is clearly a no go!



## Glimpses of the Side Event

Regulatory  
 and Managing  
 Director General  
 Secretary  
 Energy Industries  
 ident, Worldwatch  
 s, President,  
 Federation  
 Director, ISEP  
 able Energy

- Mr. Ray Morgan, Working Borough Council, UK
- Mr. Wolfgang Jung, Vice Managing Director and Head of Project Group on Future Energies at Science Park, Gelsenkirchen
- Mr. Nobuo Taniguchi, Deputy Director, Renewable Energy Section, Urban and Global Environment Division, Bureau of Environment, Tokyo Metropolitan Government
- Mr. Prithvi Raj Sawhney, Mayor of Delhi
- H.E. Jose Carlos Das Does Zorrinho, Secretary of State for Energy and Innovation, Portugal

**OFFICIAL SIDE EVENT**  
 1730 - 1900 hrs Enviro Legal Defence Firm & Heinrich Boell Foundation: Towards RE Law: locally adaptable globally competitive



Starting L-R-Side Event Banner, Main presentation on the RE law, the team sharing light moments, intervention by German Speaker, background preparation by the ELDF support staff)