

# **Stakeholder Workshop**

## **Expert Report on Budgetary, Fiscal & Financial Reforms for Development of Renewable Energy in India**

Session 2

### **Issues and Recommendations**

# Issues and Recommendations

- Idam Infra carried out extensive research and stakeholder consultations to understand the issues involved in development of RE
- On the basis of the same, Idam Infra has identified problems which need to be addressed
- Several options have been identified for potential solutions which can help put RE on the path of development envisaged in NAPCC
- Recommended actions by Parliamentarians have been developed
- We seek your comments and suggestions on the same

# NAPCC and RPO Targets

## Importance of NAPCC

- At COP-15 in Copenhagen, Denmark in 2009, India pledged to reduce the emissions intensity of GDP by 20-25% by 2020, on 2005 levels
- India's 2nd National Communication to UNFCCC, introduces NAPCC as *"the first nation-wide overarching framework that maps the roadway to low carbon and climate-resilient future"*
- NAPCC aims RE purchase of 15% of grid electricity by 2020 demonstrates its commitment to addressing climate change
- Large scale deployment of RE is extremely important for reduction of carbon emissions from energy sector
- While carbon intensity reduction commitment is *voluntary* in nature, it is still a nation's *commitment*
- **Hence, NAPCC is extremely important for RE development in**

# NAPCC and RPO Targets

## Alignment of Targets

- Under EA '03, the responsibility of target setting is with the SERCs
- Further, the Act does not specify any target for RE capacity or principle of determination of RPO
- Electricity is a concurrent subject; Centre cannot give directions to the States
- In fact MNRE Plan and RPOs operate independently
- National Electricity Policy does not specify any targets or methodology
- Further, NAPCC is not a Policy u/s 3 of EA '03, hence cannot guide the SERCs like the NEP and Tariff Policy
- **As a result, there is no mechanism for development of coordinated targets to meet the national target**

# Compliance of RPO

- EA '03 empowers SERCs to specify RPO
- The Act does not specify any institutional framework for monitoring, reporting and verification
- Regulations notified by SERCs have mandated SNAs to monitor the compliance of RPOs
- SNAs have limited capability to monitor and verify the RPO compliance
- Ambiguity around applicability of penal provisions u/s 142 & 146 in case of Non-compliance of RPO
- **Need for stringent mechanism for compliance of RPOs**

# Strengthen REC framework

- REC is a regulatory instrument created by CERC REC regulations
- REC has to be traded over the exchange
- Makes compliance of RPO difficult for small obligated entities (OEs)
- To ensure long term sustainability, banding or vintage multiplier mechanism would be required
- **Bilateral trading of REC not allowed**

- **No possibility of market maker at present**

■ Opening Balance ■ REC Issued  
■ REC Redeemed ■ Closing Balance

# Ensure Policy Certainty

- Uncertainty surrounding Accelerated Depreciation and Generation Based Incentives for wind has impacted capacity addition
- Policy uncertainty impacts project planning and financing
- Lenders perceive huge policy risk with RE projects vis a vis Conventional energy projects
- No clear roadmap for transmission planning, off-grid RE projects, etc.
- No Legislation/framework for off-grid generation/ applications
- **Need for a National Renewable Energy Policy under EA**

**'03 or under a new RE Law**

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# NAPCC and RPO Targets

## Compliance of RPO

### Strengthen REC framework

### Ensure Policy Certainty

#### Short Term

- Amend National Electricity Policy u/s 3 of EA '03 to
  - Specify Principle to be followed for designing RPO trajectory
  - NAPCC should form the basis for defining RPO trajectory
  - MNRE should approach APTEL to give appropriate directions to SERCs for compliance of RPO and suggest that penalty provisions u/s 142 & 146 be imposed for non-compliance
  - MNRE should issue guidelines for monitoring and reporting of RPOs by SNAs
- RE/EE options should be given preference of over other supply



# NAPCC and RPO Targets

## Compliance of RPO

### Strengthen REC framework

### Ensure Policy Certainty

## Medium Term

- Preamble to the Act:
  - To give preference to renewable energy and energy efficiency preference over other supply side options
- Amend Sec 2 to define
  - Renewable Energy
  - Renewable Energy Certificates
- Amend Sec 3 to make provision for
  - National Renewable Energy Policy
  - Net metering regulations
  - Third party provisioning of small scale RE Systems

# NAPCC and RPO Targets

## Compliance of RPO

### Strengthen REC framework

### Ensure Policy Certainty

#### Medium Term

- Amend Sec 86 (1)(e) to make provisions for
  - Make FoR responsible for co-ordination of state RPOs
  - Recognise REC as an instrument to fulfill RPO
  - Banding and Vintage multiplier for RECs
  - Clarify cogeneration from fossil fuels
  - Preference for connectivity to grid
- Section 142 of the Act to:
  - Punishment for non compliance of RPO
- Section 181 of the Act to:
  - Allow SERCs to issue Regulations for Renewable Purchase

Obligations

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# NAPCC and RPO Targets

## Compliance of RPO

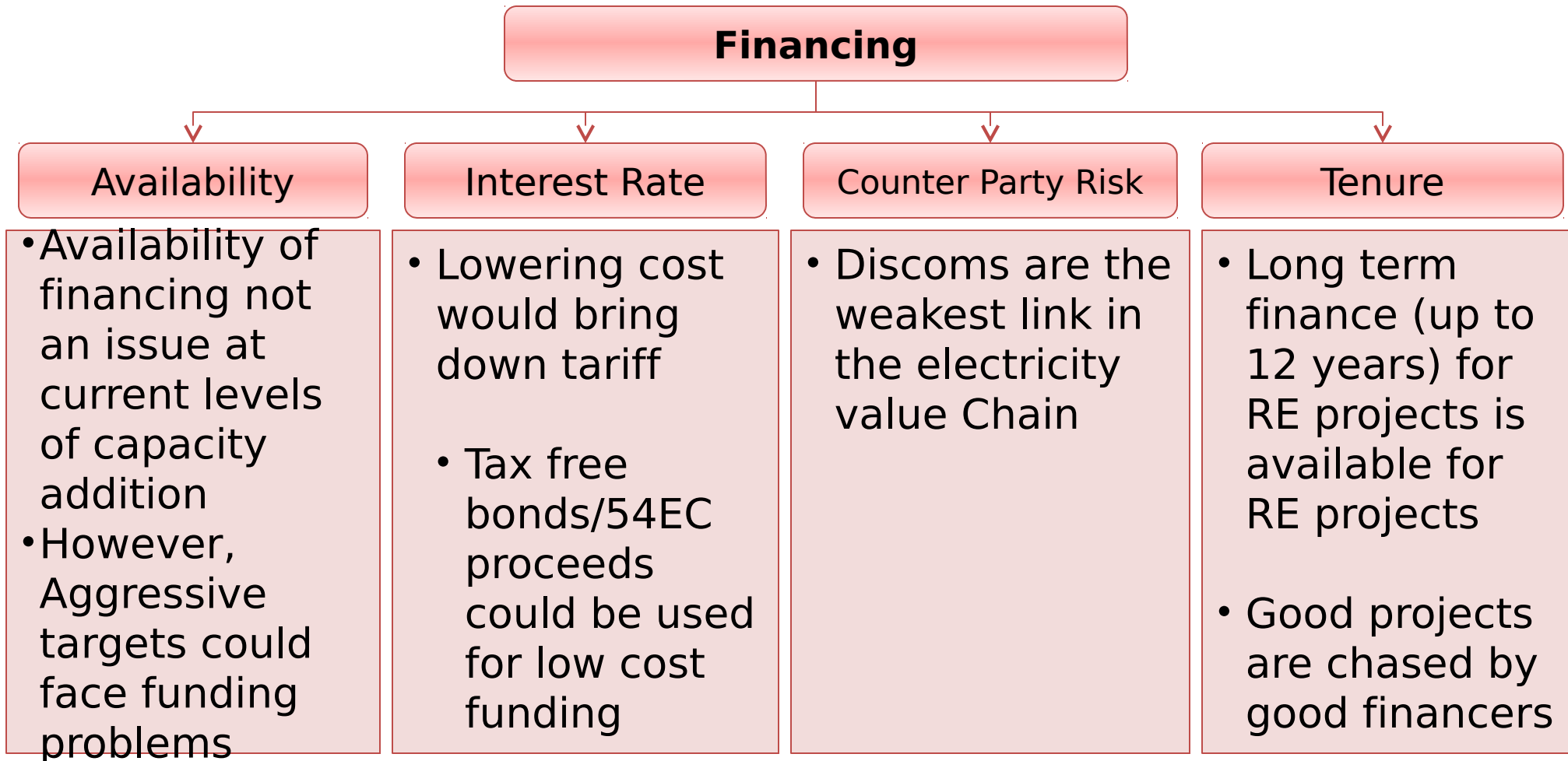
### Strengthen REC framework

### Ensure Policy Certainty

## Long Term

- Even if Amendments to EA 2003 proposed in the previous slides are enacted, several areas such as following would not be covered.
  1. Off-grid applications such as solar heating and cooling
  2. RE in transport, heating/cooling etc.
  3. Promotion of Bio-energy/Bio-fuels
  4. Off-grid generation and Rural Electrification
  5. Standards for equipments and systems
  6. Provisions for domestic equipment manufacturing
  7. RE resource assessment and system planning
  8. Provisions for Grid Connectivity and Transmission planning
  9. Formulation of National RE Policy

# Funding for RE



**Policy Uncertainty is the biggest hindrance for financiers at present**

# Funding for RE - Recommendations

- **“Carve Out” under Priority Sector Lending**
  - RBI should be pursued to define “Carve Out” for renewable energy within infrastructure sector under Priority Sector Lending
  - Banks will still have to be pursued to lend to RE projects
  - While quantum of money will increase, cost will remain same
- **Green Bonds**
  - Create and market ‘Green Bonds’ on the lines of Infrastructure Bonds
  - IREDA, SECI, PFC, REC should be encouraged to issue
  - Proceeds to be utilized only for RE funding
  - Long tenure 15 to 20 years

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• Both investment and interest on bonds should be tax free

# Funding for RE - Recommendations

- **Tax benefit for individual investment in small RE system**
  - RE potential especially solar is spread across the country
  - Distributed generation/ applications also reduce losses as well as investment in grid infrastructure
  - Need to promote such generation/ applications
  - Grid interconnection/ net metering would remove technical hurdles
  - However, systems will not be economical for end-consumer
  - Government should give tax rebate under Section 80(c) or 10(23) (G) to individual investor for investment in distributed RE system

# Funding for RE - Recommendations

- **National Clean Energy Fund**
  - Currently, projects are required to clear 'innovative' or 'R&D' criteria
  - Current ecosystem is not conducive to produce such projects
  - Given the size of the funds, small portion could be utilized
  - CPCB projects of 'Remediation of Hazardous Waste' has recd funding
  - Interest subsidy on loan is proposed
  - Resultant, confusion on purpose and utilization
  - Revise NCEF guidelines to Focus utilization of funds to RE/EE sectors
  - Large scale deployment projects should be given priority
    - Mechanism to reduce counter party risk could be incorporated
    - Viability Gap Funding
  - Interest rate subsidy

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# Funding for RE - Recommendations

## National Renewable Energy Fund (NREF)

- It is proposed to create National Renewable Energy Fund within MNRE
  - It is envisaged to be much smaller in size than NCEF
  - Complimentary to NCEF and will have specific purpose
  - It may be set up on the lines of the National Culture Fund (NCF) under Ministry of Culture
  - Set up under the Charitable Endowments Act 1890, donations/contributions are eligible for 100% tax deduction under Section 80 G of the IT Act 1961
- Mechanism could be developed for CSR investment in this fund



# Funding for RE - Recommendations

## National Renewable Energy Fund

- Sources of funds
  - International bilateral/multilateral support
  - Green Climate Fund / climate related funding
  - Individual investment for tax deduction under Sec 80G
  - Penalties for non-compliance of RPO
  - CSR contributions
- Utilization of funds
  - Periodic purchase of RECs to provide price stability
  - Grant funding of small RE /off-grid projects
  - Promotion of new innovative and R&D technologies

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# Inter Ministerial Co-ordination

- Disconnect between policies of MNRE, and other ministries
- Various schemes such as PURA, JNNURM, DMIC etc. with developmental goals could incorporate RE as one of the vital components
- However, the schemes have dedicated budgets which do not include provision for RE related activities

## JNNURM

- Sectors covered under JNNURM
  - Water supply & sanitation
  - Sewerage and solid waste management
  - Road network and urban transport
  - Redevelopment of old city areas
- Power and energy is excluded from this list. At the same time, MNRE is running Solar Cities Program in more than 60 cities in the

# Inter Ministerial Co-ordination

## PURA

- Aims at holistic and accelerated development of compact areas around a potential growth centre through Public Private Partnership (PPP) framework
- Activities such as electricity generation, village street lighting can be undertaken but amenities to be provided under schemes of

## Delhi-Mumbai Industrial Corridors (DMIC)

- It is India's the most ambitious Infrastructure programme aiming to develop new industrial cities as "Smart Cities" and converging next generation technologies across infrastructure sectors
- There is scope for including 'Deployment of RE' can be undertaken in the 'Perspective Plan' but Planning, implementation, and financing arrangement will have to be done by MNRE

# Inter Ministerial Co-ordination

- Kerosene subsidy bill runs to approx Rs. 30,000 crore per annum
- In contrast the total budget of MNRE for FY 2013-14 is just Rs. 1521 Cr
- Kerosene is mainly used for lighting purpose.
- These funds, if diverted to solar lighting, could create long term solution
- **Currently, no clear strategy**

PDS Kerosene and Domestic LPG subsidy allocation

■ PDS kerosene subsidy to consumers (crore)  
■ Domestic LPG subsidy to consumers (crore)

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# Inter Ministerial Co-ordination

## Short Term

- MNRE should:
  - Identify requirements for participation in the national schemes/programmes and include them in their budget
  - Set up institutional framework for co-ordination with nodal ministries of identified National Schemes
  - Jointly formulate a roadmap with MoPNG for gradual replacement of Kerosene with RE

## MNRE Budget

- 13th Estimates Committee recommended MNRE budget should be increased to 1% of Union Budget, actual around 0.26%-0.27% for the past 4 years
- MNRE requested for an outlay of Rs. 10,460 Cr for the 11th Plan period
  - Allocation → Rs. 4068 Cr , Utilized → Rs. 3798 Cr
- MNRE had requested for an outlay of Rs. 40,000 Cr for the 12th Plan period

Year	MNRE allocated Budget (Rs. Crore)	Total Plan Expenditure (Rs. Crore)	MNRE Budget as a percentage of the total budget
2010-11	1000	379029	<b>0.26%</b>
2011-12	1200	426604	<b>0.28%</b>
2012-13	1385	521025	<b>0.27%</b>
2013-14	1521	555322	<b>0.27%</b>

# MNRE Budget

## Short-Medium Term

- MNRE budget should be increased gradually every year starting from 0.5% of the Union Budget in FY 15 up to 1% in FY 17
- Budgetary allocation should be done on the basis of capacity addition target set for projects under subsidy mode
- Should also take into account inter ministerial schemes where RE can be deployed

## Equipment Manufacturing

- India has abundant availability of RE sources
- Yet huge imports of primary energy sources (coal/petroleum)
- Fossil fuel imports are unsustainable, also impacting fiscal situation
- Need to develop and mass manufacture RE conversion technologies
- DCR norms restrict imports, inadequate for promotion of sustained growth of domestic equipment manufacturing industry

• **At present, there is no policy roadmap for promotion of**

### Short-Medium Term

- MNRE should pursue formulation of Domestic RE Equipment Manufacturing Policy



## Promoting off-grid RE

- Gol's pledge "Electricity for all "by 2012, extended to 2017, still distant dream
- Global: 1.3 billion people (~20% population) still do not have electricity
- India: 1/3rd HHs still use kerosene for lighting
- Main source of energy in remote off-grid areas is still fossil fuels
- For remote areas from the grid and with low population density, off-grid energy seems to be the most practical solution
  - Off-grid renewable has vast potential to provide access to clean and RE
  - Lack of awareness among consumers about off-grid RE applications
  - Lack of funding support for off-grid RE applications
  - High cost of generation of small scale RE power generation than grid tariff

- Needs innovative business models (with FiT support or viability gap funding) to ensure profitability of project developer over



# Promoting off-grid RE

## Short Term

- Formulate viable business models , modify DDG guidelines to attract large-scale private sector participation for off-grid generation and distribution
- Identify one singly entity/Ministry responsible for rural electrification through RE sources

## Medium-Long Term

- Formulate enabling policies and regulatory framework for promotion of off-grid renewable energy through FiT and viability gap support

# CSR funds for RE

## The New Companies Bill, 2012

### Eligibility:-

- Company with net worth of Rs 500 crore or more
- Turnover of Rs 1,000 crore or more
- Net profit of Rs 5 crore or more, during any financial year to constitute a CSR Committee of the Board

### Clause 135 states:-

- In fulfilment of the eligibility at least 2% of average net profits of the company in the three immediately preceding financial years are spent in every financial year on any activity to be undertaken by the company as specified in Schedule VII of the Act

# CSR funds for RE

## Short Term

- Current Schedule VII is very generic and has significant scope for interpretation of usage of funds
- Ministry of Corporate Affairs should specify rules for utilization of CSR funds consultation with MoEF and MNRE
- Funds should be utilised for:
  - Purchase of RECs without RPO setoff
  - Contribution to National RE Fund
  - Non-commercial investment in off-grid RE applications

# Large Hydro in RE Targets

- Many countries classify large hydro as a RE source
- **India’s stand weakens in the climate change negotiations since large hydro generation is not counted in RE share**

Countries that classify Large Hydro as RE	Benefits provided to Large Hydro
<b>United Kingdom</b>	Eligible to receive REC certificates
<b>Australia</b>	Eligible to receive REC
<b>Belgium</b>	Eligible to receive REC benefits
<b>Italy</b>	Eligible to receive REC benefit
<b>Poland</b>	Eligible to receive REC benefit
<b>Canada</b> (province of Nova Scotia)	Eligible to receive preferential tariff

## Short Term

- Classify large hydro as RE generation

# Thank You