CUTS International

Regulatory impact assessment in Indian electricity generation sector

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Outline

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- Progress made so far
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Background

National energy scenario

- Current total installed capacity – 2.48 Lakh MW
- Projected capacity addition during the 12^{th} plan (2012-2017) – 1.18 Lakh MW
- Current total private sector installed capacity – 87K MW
- Projected capacity addition by private sector during the 12^{th} plan – 47K MW (excluding RES) (capacity addition of around 54%)

(Source: CEA, May 2014, 12^{th} FYP document)

The project

- **Objective**:
  - Use RIA tool to improve regulatory process in private electricity generation and suggest better alternatives
- **Genesis in CUTS regulatory reform work:**
  - Working group on Business Regulatory Framework
  - Regulatory Reform Bill
- **Engagement with DEA and support from ADB**
- **Expected outcomes:**
  - Greater awareness about RIA tool
  - Reducing regulatory hurdles, thus escalating net welfare

The project

- **Scope of the project:**
  - Land acquisition for hydro IPPs in Himachal Pradesh
  - Environment approvals for coal IPPs in Rajasthan
  - Finance (investment and returns) for solar IPPs in Gujarat
- **Time frame:** May – December, 2014
- **Limitations:**
  - Equally justifiable arguments to consider different states and issues
  - Sub-optimal implementation might be the key hindrance

What is RIA?

- Systematic and scientific appraisal of impacts of regulatory proposals/ existing regulations, on stakeholders
- Comparative process to determine the best policy alternative
- UK, US, Australia, South Africa, most recently, China
- Types: Ex-ante RIA and Ex- Post RIA
- Ex-post: Whether regulations are achieving their objectives
- Overall aim is to ensure greatest net public benefit

What is RIA?

Ex-ante	Ex-post
Identifies potentially anti-competitive, protectionist, welfare reducing, and sub-optimal regulations before enactment	Review of existing policies and regulations and assessment if legislations are achieving their objectives, and suggesting suitable modifications

- While OECD countries started to utilise RIA in 1970s, non OECD countries started to incorporate it in policy making and review since mid 1990s.

Process of RIA

- Identify the problem
- Develop indicators for identification and comparison of legislations
- Identify applicable legislations
- Compare legislations and shortlist most relevant legislation
- Stakeholder validation and initial inquiries
- Develop alternatives
- Stakeholder interaction
- Assessment of positive and negative impacts
- Select optimal alternatives

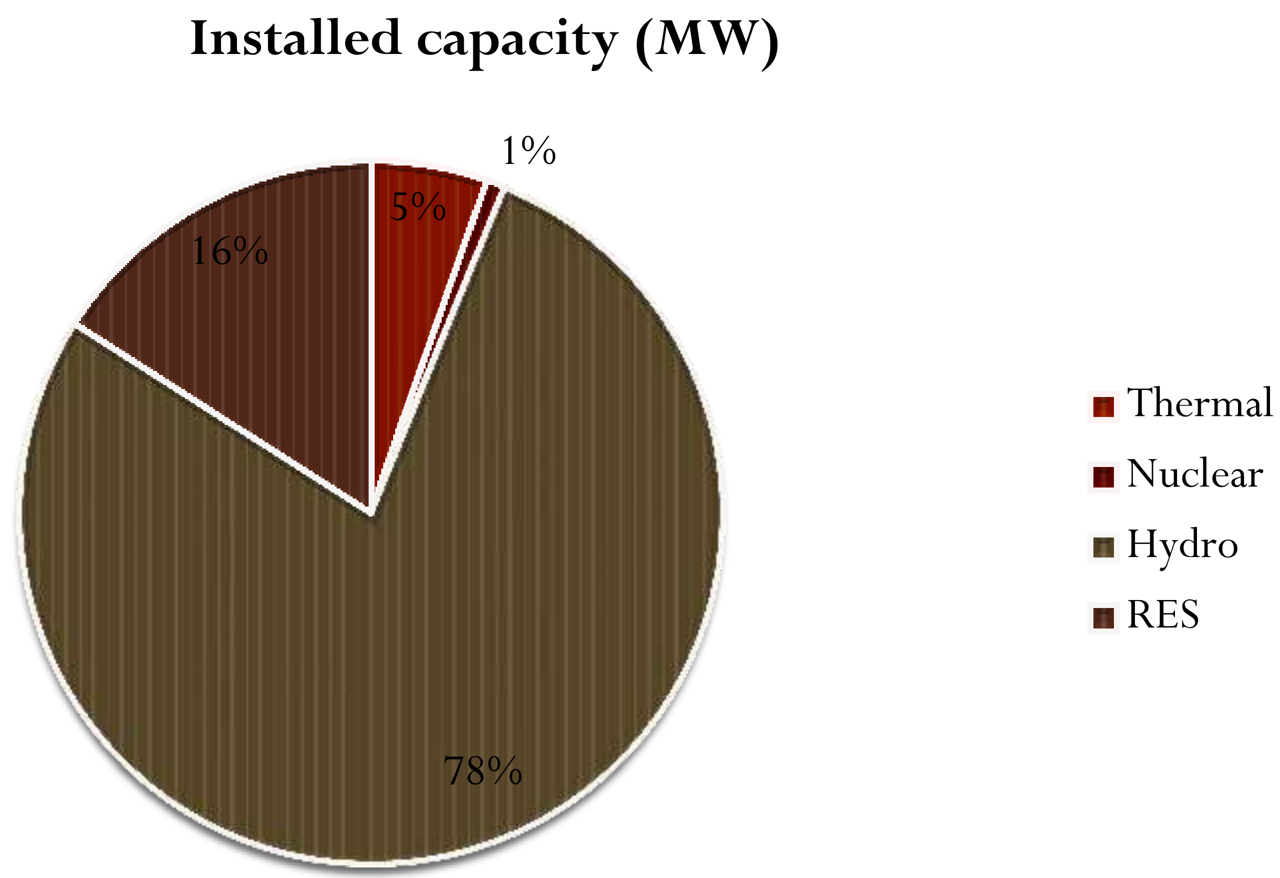
Challenges in RIA

- Relatively new tool in developing countries
- Data collection
- Availability of reliable and high quality data
- Quantification and comparison of positive and negative impacts on stakeholders
- Comparison on impact of existing legislations with hypothetical alternatives

Progress made so far

Step I: Identification of states and problems

Himachal Pradesh

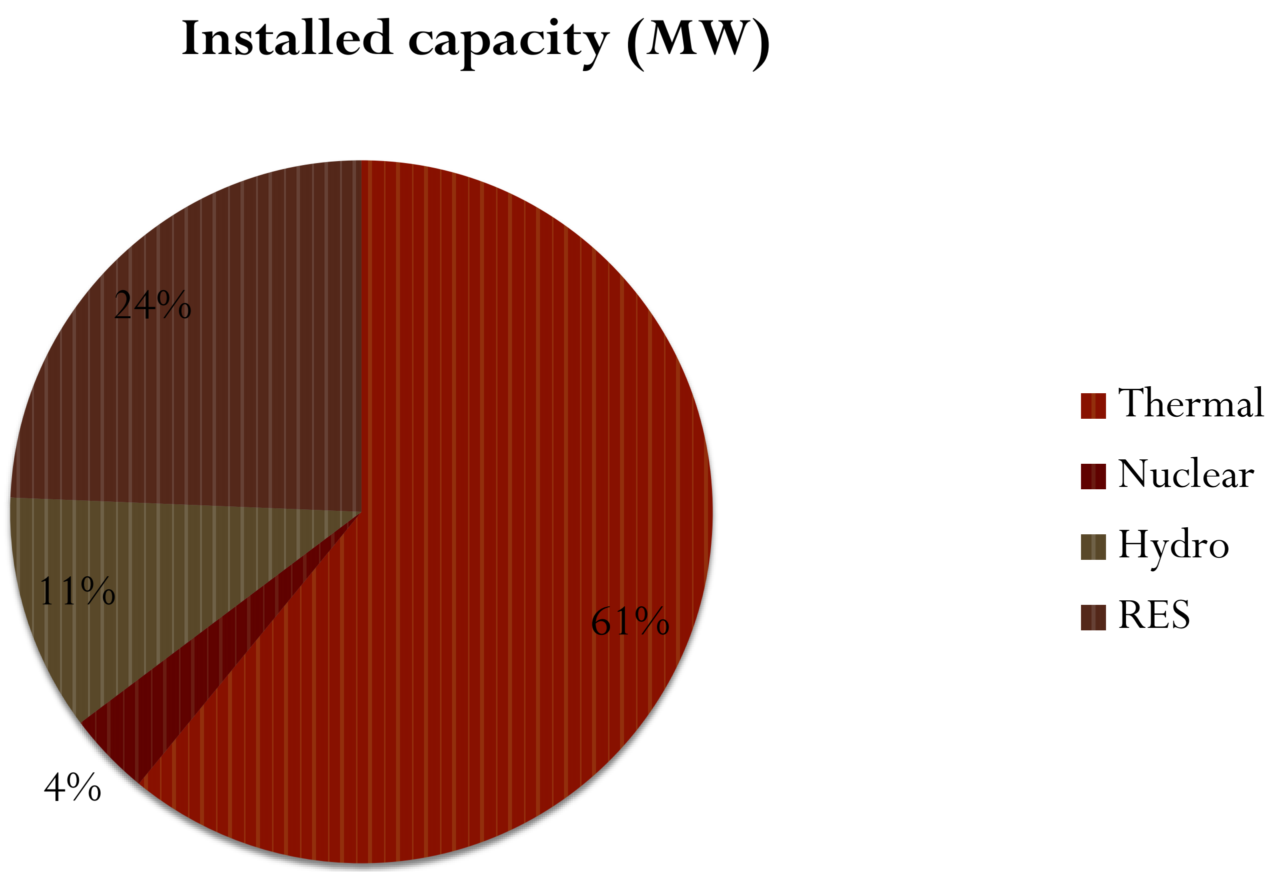


Source: CEA, May 2014

Hydro IPPs in HP

- One of the highest hydro power capacity states
- Highest private participation in hydro power in HP
- All India hydro potential of 1.45 lakh MW of which only 34.5K MW developed
- HP hydro potential of 20K MW of which only 3K MW developed
- Land acquisition and diversion of forest land biggest issues
- Of the total applications pending for forest land diversion, 30% come from HP

Rajasthan

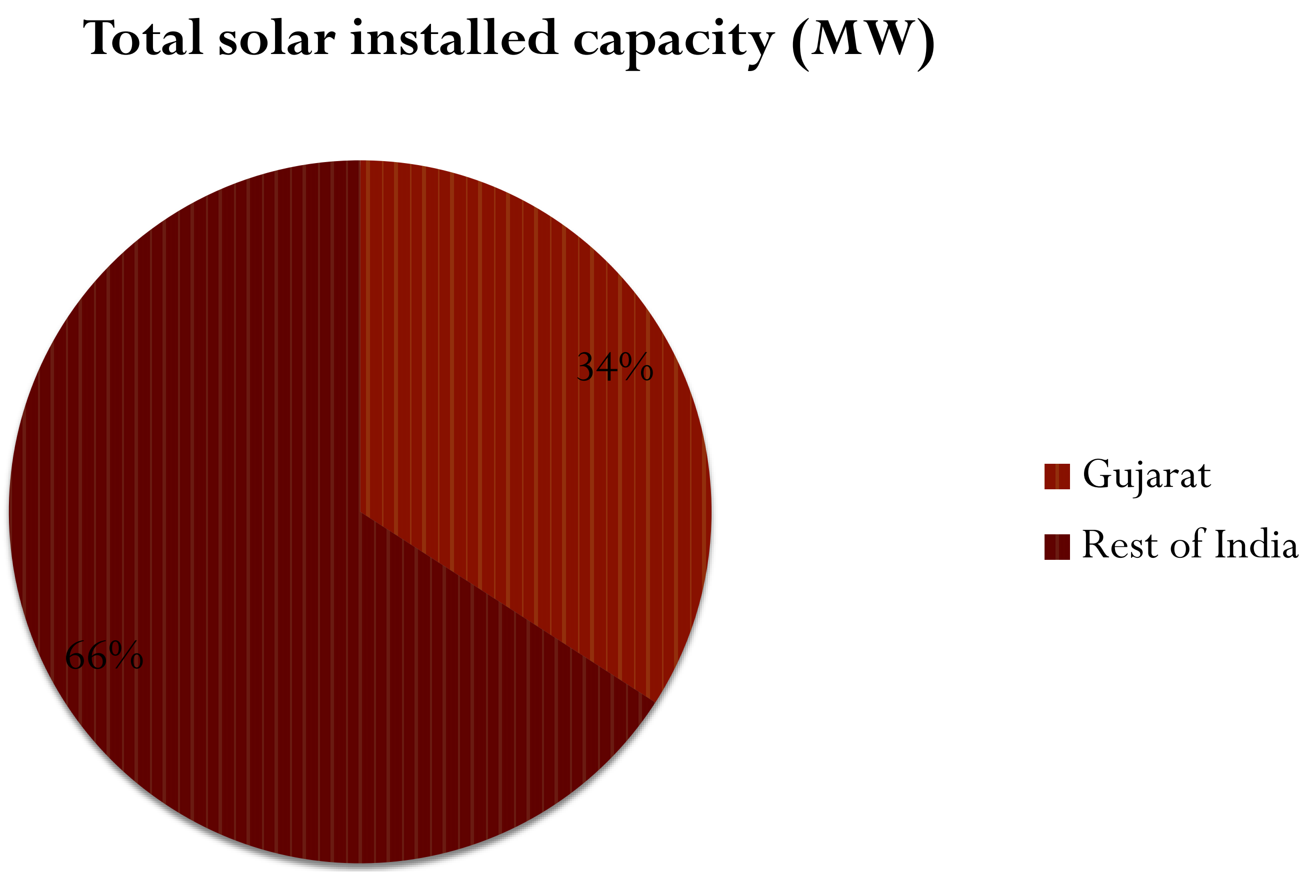


Source: CEA, May 2014

Coal IPPs in Rajasthan

- Share of thermal power in national energy mix is expected to remain around 58% by 2030 (*12th FYP*)
- Contribution by private sector in coal based power production is expected to increase
- In FY 13-14, capacity commissioned by private sector in Rajasthan was 1,320 MW, amongst highest in the country (*MoP, April 2014)*
- Environment clearance one of the biggest impediments for coal IPPs
- Existence of suspended particles in air, and high temperature, increases the problem in Rajasthan

Gujarat



Source: Bridge to India, 2014

Solar IPPs in Gujarat

- In 2013, India added 916 MW of new solar capacity, sixth globally. By 2030, India is expected to overtake China and US
- Gujarat has 859 MW grid connected solar installed capacity
- Gujarat has highest private sector participation in solar power generation
- India has set a target of 22 GW of installed solar capacity by 2022, which will require an investment of USD 13 billion
- Availability of finance (both investment and secure return) has been a major challenge to solar development

Progress so far

Step II: Indicators for selection and comparison of legislations

HP and Rajasthan

World Bank Doing Business Indicators:

- Number of approvals
- Time taken
- Cost
- Number of procedures
  - Number of authorities involved
  - Documentation required
  - Reporting requirements
  - Additional conditions

Gujarat

- Investment incentives
- Revenue incentives
- Financial externalities
- Costs of operations

What else?

Structure of the Research Report

- Executive summary
- Introduction to RIA (Literature review)
- Overview of the sectors and the problems
- Identification, comparison and selection of legislations
- Ascertainment of lacunae and development of alternatives
- Methodology of assessment of costs and benefits
- Data collection and tabulation
- Assessment of impact and selection of optimal alternatives
- Conclusion and way ahead

Where do we stand?

- Literature review (Introduction to RIA) section of the research report
- Problems in specific sub sector identified
- Legislations identified and compared
- Preliminary validation of research

Following presentations

- 3 state specific presentations:
- Legislations identified and compared in each of the states
- Preliminary stakeholder feedback
- Advice from the floor

THANKYOU

Advice, questions or clarifications?