



## **Integrated Resource Planning (IRP)**

### **Part 2: Options for the implementation of an Integrated Resource Planning (IRP) process in the Indian electricity sector<sup>1</sup>**

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<sup>1</sup> The first part of this study dealt with the meaning of IRP and focused on its recent practice in the power sector of countries around the world.

## ***Contents:***

<i>Abstract</i>	2
<b>1. Basis for IRP for the Indian power sector</b>	<b>3</b>
1.1 Private attempts at IRP	3
1.2 Recent changes affecting the planning structure	4
<b>2. Policy instruments for incorporating IRP</b>	<b>4</b>
2.1. Laws/Regulations	5
2.2 Directives/Policies	5
2.3 Interlinking of departments/programmes	6
2.4 Funding	7
2.5 Pricing/financial mechanisms	8
2.6 Specific focus/designated staff	8
2.7 Capacity building	9
2.8 Standards	10
2.9 Public participation	11
<b>3. Suggested planning agencies</b>	<b>11</b>
3.1 The Planning Commission	12
3.2 The CERC' appointees	12
3.3 The CEA	13
3.4 A newly established national Working Group	13
3.5 The SERCs' appointed agencies	14
3.6 The States' Planning Departments	15
3.7 Utilities (whether serving a state or a region)	15
3.7.1 When filing tariffs for approval	15
3.7.2 When applying for central/state funding	16
3.7.3 When applying for approval of PPAs	16
3.7.4 When securing distributors licensing/franchising agreements	16
3.7.5 When proposing EE programmes	16
3.7.6 To reduce environmental impacts	17
3.7.7 To meet improved efficiency norms	17
<b>4. Discussion - questions to be asked</b>	<b>19</b>
<i>References</i>	<b>22</b>

**Abstract:**

*This study focuses on the potential structures and policy measures through which the Indian power sector could employ integrated resource planning (IRP) methods in its planning processes.*

*It begins with a summary of the Indian experiences with IRP thus far and the recent changes that can contribute to adoption of IRP.*

*On the basis of these experiences, the potential policy “instruments” through which IRP can be carried out are identified. These include: mandatory requirements (laws/regulations), directives/policies, interlinking of departments/programmes, funding, pricing/financial mechanisms, specific focus/designated staff, capacity building, standards, and encouragement of public participation.*

*Appropriate policy agents who could carry out the required planning processes would depend on the extent of ‘integrated’ planning – ranging from exhaustive comparison of alternative demand and supply options at the national level, to a partial consideration of some alternatives by local utilities. Accordingly, one can consider at the national level: the Planning Commission, the appointees of the Central Electricity Regulatory Commission (CERC), the Central Electricity Authority (CEA) through its IRP division, and a new Working Group comprising members from the concerned Ministries/Departments and other experts. At the regional (state or utility) levels, there could be appointees of the State Electricity Regulatory Commissions (SERC)s, the States’ Planning departments, and individual utilities (whether generators or distributors). There are various situations in which utilities could undertake IRP – when proposing tariffs (i.e. tariff-filing), when applying for funding, when preparing power purchase agreements (PPAs), when securing licensing/franchisee agreements, when proposing energy efficiency (EE) programmes, and, if new rules are imposed, to reduce environmental impact costs, and to meet new efficiency norms.*

*The concluding discussion lists the questions that need to be answered when deciding on the type of planning for power utilities.*

**Keywords: integrated resource planning (IRP), power/electricity planning, Indian power sector, power sector problems, policy instruments**

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