

# Capability Statement

## Climate Change Advisory Practice

April 2010



**ABPS Infrastructure Advisory**

[www.abpsinfra.com](http://www.abpsinfra.com)



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### 1 Overview of ABPS Infra

'ABPS Infrastructure Advisory Private Limited' (ABPS Infra) is a management consultancy organization providing services in commercial, financial, and regulatory spheres of the infrastructure sector. ABPS Infra focuses on various infrastructure sectors such as Power, Renewable Energy, Oil & Gas, Water, Transportation, Urban Infrastructure, etc.

In a short span of around two and a half years since inception, ABPS Infra has completed more than 80 consultancy assignments in the infrastructure sector. ABPS Infra has advised/assisted a wide spectrum of entities in the infrastructure sector such as Corporates, Project Developers, Equity Investors, Regulatory Authorities, Utilities, Industry Associations, Governments/Government Organisations and Multi-lateral Agencies.

## 2 Practice Areas

ABPS Infra offers its services in five practice areas:

### Financial Advisory

- Counter Party Risk Assessment
- Financial Modelling
- Risk Assessment and Mitigation Measures
- Due Diligence
- Public Private Partnership
- Contract Structuring
- Business Strategy

### Renewable Energy

- Renewable Energy Resource Assessment
- Renewable Purchase Specifications
- 'Feed-in' Tariff Determination
- Grid Integration of Renewable Sources
- Market Study and Investment Strategy
- Project Development Support
- Project Structuring

### Regulatory and Policy Consulting

- Diagnostic Studies
- Licensing & Regulations
- Pricing Issues in Regulated Markets
- Market Development
- Monitoring and Compliance
- Rural Electrification
- Capacity Building

### Energy Efficiency and Demand Side Management

- Demand Side Management Planning
- Energy Audit
- End Use Efficiency Improvement Programmes
- Monitoring & Verification (M&V)
- Life Cycle Assessment
- Training and Capacity Building

### Climate Change

- Climate Change Policy Analysis
- Carbon Foot-Print
- Carbon Neutrality
- CDM Project Development Support
- Emission Trading Advise

### 3 Scope of Services –Climate Change

ABPS Infra is eminently placed to advise its clients on various Climate Change issues, which are of paramount importance to them. The areas of expertise of ABPS Infra in this regard are:

- a) Climate Change Policy Analysis
- b) Measurement of Carbon Foot-Print
- c) Strategy development for achieving Carbon Neutrality
- d) CDM Project Development Support
- e) Emission Trading Advise

#### 3.1 Climate Change Policy Analysis

Regardless of whether a CDM project is implemented through a bilateral, multilateral or unilateral approach, it must be subjected to a common regulatory framework. At different stages of the process, of the project to get registered under Clean Development Mechanism, the developer has to satisfy the rules, regulations and guidelines set by the different authorities involved. The apex authority, the CDM – Executive Board, has issued a set of guidelines for a project to get registered under Clean Development Mechanism. These guidelines a project developer is supposed to understand and follow so as to avail the CDM benefits associated with the project.

Apart from the Executive Board the project developer has to satisfy the rules set by the Host Country, where the project is being developed. The Host Country has to endorse that the proposed project contributes to the Sustainable Development in the country and has a long term benefits. The approval from the Host Country is very vital in the process of project registration.

We have expertise to develop strategies and guide the client through the various rules, regulations and guidelines set by the different authorities to manage emissions from green house gases.

#### 3.2 Measurement of Carbon Foot Print

The Carbon Footprint is a measure of the exclusive total amount of carbon dioxide emissions that is directly and indirectly caused by an activity or is accumulated over the life stages of a product. The task of calculating the carbon footprints can be approached either by the Process analysis or the Environmental Input Output analysis. Both of the approaches involve the Life Cycle Assessment/Analysis.

It is also desired by the organisations to aim to develop a plan to reduce the carbon emissions arising from their business activities. This plan needs to be reviewed periodically to assess progress towards planned actions.

Our team of experts can guide and educate the organisations in the calculation of the Carbon Footprint and also help them to prepare the carbon emission reduction plan by suggesting different ways through which the carbon emissions can be reduced.

### 3.3 Strategy for Achieving Carbon Neutrality

As the awareness of the climate change issue has increased in the individuals as well as in the organisations, a popular trend is to become a carbon neutral. A voluntary step is being taken by many of the leading organizations to reach carbon neutrality by reducing their own direct and indirect emissions and offsetting their remaining emissions through purchases of carbon offsets through international markets.

There are two primary markets for carbon offsets. In the larger compliance market, companies, governments or other entities buy carbon offsets in order to comply with caps on the total amount of carbon dioxide they are allowed to emit. In the much smaller voluntary market, individuals, companies, or governments purchase carbon offsets to mitigate their own greenhouse gas emissions from transportation, electricity use, and other sources. For example, an individual might purchase carbon offsets to compensate for the greenhouse gas emissions caused by personal air travel.

ABPS Infra has necessary expertise to guide and assist leading corporations, multi-national organisations and also the government by providing the solution, training, arranging the workshops and formulating the strategy to achieve towards the carbon neutrality position.

### 3.4 CDM Project Development Support

Every project is not eligible to get registered under the Clean Development Mechanism of the Kyoto Protocol. If a Due Diligence is performed, in advance, it can help client to lessen the unnecessary expenditure, of developing the Project Design Document and other expenditures associated with the entire CDM project registration process, for the projects which are not eligible to get the CDM benefits. Our team of experts will help the client to understand whether the proposed project is actually eligible to avail the CDM benefits prior to developing the Project Design Document.

The project to get registered with the CDM-Executive Board it requires the submission of the Project Design Document in the manner which the CDM-Executive Board prescribes from time to time. The Project Design Document needs to be validated before the proposed project gets registered with the CDM-Executive Board. We have developed necessary expertise to

satisfy the queries, if at all, raised at the time of project validation. Also, ABPS Infra has capabilities to guide the project through registration, monitoring and verification of Green House Reductions and finally the certification.

### 3.5 Emission Trading Advise

Once the project gets registered under Clean Development Mechanism, the CERs issued by the CDM-Executive Board, are sold/traded to the prospective buyer as per the Emission Reduction Purchase Agreement (ERPA).

To achieve the carbon emission level allocated in the Kyoto Protocol, the buyer enters into an agreement with the Sellers for purchase of the emission reduction units. This agreement usually involves two countries, however it may be signed between a country and a large corporate.

We have necessary expertise to guide the project developer in preparing the Emission Reduction Purchase Agreement.

## 4 Key Assignments in Climate Change

A brief description of some of the key assignments undertaken by ABPS Infra in Climate Change area is given below:

### 4.1 Suggesting appropriate methodology to prove the Financial Additionality for the projects to qualify for CDM benefits

*Client: Renowned CDM consultant*

In order to prove the financial additionality for the projects to qualify for CDM benefits the CDM - Executive Board has notified tool for the demonstration and assessment of additionality. In order to demonstrate the financial additionality of the projects through Investment Analysis, the tool has suggested three options viz. Simple Cost Analysis, Investment Comparison Analysis and Benchmark Analysis.

The Simple cost analysis is carried out if the proposed CDM activity generates no economic benefit other than the CDM related income. The Investment Comparison Analysis is carried out when the financial indicators are required to compare the attractiveness between the different options available for investment. The Benchmark Analysis involves a comparison of the financial indicators of CDM activity such as IRR on equity, with an identified benchmark value such as required rate of return on equity. The other benchmark can be government bonds rates, weighted cost of capital etc.

The assignment essentially includes the selection of the appropriate options available for proving the financial additionality. This was carried out with the help of Benchmark Analysis. Various methods considered which can qualify the Benchmark Analysis test were analysed and appropriate method has been suggested.

## 4.2 Assistance in carrying out Benchmark Analysis for proving the Financial Additionality

*Client: Renowned CDM consultant*

A fundamental criterion for a CDM project is that it must be 'Additional'. 'Additional' in CDM context means that the project does not represent a business as usual scenario. In other words, it must be documented and justified that the proposed project activity will not be materialized if it cannot qualify as a CDM project and thereby have the opportunity to generate Certified Emission Reductions.

The objective of the assignment is to prove the proposed project to be financially additional i.e. the project will be unviable if it does not get the CDM benefits. The project was proved additional by performing the Benchmark Analysis. In the benchmark analysis the Weighted Average Cost of Capital of the project has been taken as the Benchmark and the Project IRR as the Indicator.

The assignment involved following activities:

- Calculation of the Weighted Average Cost of Capital of the project.
- Identifying the applicability of the various methods available for the calculation of Cost of Equity and calculation of the Cost of Equity with the help of Capital Asset Pricing Model.
- Preparation of a model for the calculation of Weighted Average Cost of Capital of the project.
- Preparation of a Financial Model for the calculation of Project IRR.
- Analysis of the Project IRR with the Benchmark i.e. WACC.

## 4.3 Measurement of Carbon Footprint of a Large Chemical Factory

### Consultancy Services for Measurement of Carbon Footprint of Large Chemical Factory

*Client: Large Chemical Group having presence in International Market*

In 2007, the Intergovernmental Panel on Climate Change (IPCC) under its fourth assessment report pointed out that the most of the observed increase in global average temperatures, since the mid-20th century, is very likely due to the observed increase in anthropogenic (human) greenhouse gas emissions. Anthropogenic warming and sea level rise would continue for

centuries due to the timescales associated with climate processes and feedbacks, even if greenhouse gas concentrations were to be stabilized, although the likely amount of temperature and sea level rise varies greatly depending on the fossil intensity of human activity during the next century.

Significant instructions have been imposed on large number of industries which emit greenhouse gases. These measures have also created significant awareness among industrial undertakings about the global warming issues. Many businesses across the globe, as a part of their social responsibility, have attempted to measure their carbon emissions and have taken measures to become carbon neutral.

The client organisation is a subsidiary of an international group, who has marked its presence in manufacturing wide range of catalyst used for varied applications. The manufacturing of the catalysts contributes to the greenhouse gas emissions and one of the India divisions of the group as a part of their corporate social responsibility, wanted to measure their carbon footprint. Hence they have engaged services of ABPS Infrastructure Advisory Private Limited (ABPS Infra) to provide the necessary services.

The objective of this assignment was to measure the carbon emissions of the chemical factory since FY 2005-06. The assignment essentially involved,

- Assessment of emissions due to Energy Consumption, viz. electricity, and fossil fuel consumed in various activities by the Manufacturing Facility
- Assessment of Emissions due to consumption of Natural Gas
- Assessment of Emissions in Transportation activity which includes transportation of employee in vehicles', emissions during business trips in air plane, transportation of raw material and finished products utilising heavy vehicles, and
- Assessment of Emissions taken place during various chemical process.

#### **4.4 Multi-National Research Project**

##### Consultancy Service for Task XVIII – DSM & Climate Change of International Energy Agency Demand Side Management Programme

*Client: Bureau of Energy Efficiency*

Though DSM is a relatively new phenomenon in the country, there have been isolated implementations of DSM programmes throughout the country. It is necessary to understand the learning from these implementations and create awareness about these within all other Utilities. It is also known that implementation of demand side management measures helps in reduction of green house gas emission. Also, it is necessary to create a mechanism wherein Indian Utilities benefit additional benefits of clean development mechanism by implementing

demand side management measures from the international experience in this area. To achieve this, the Government of India had signed Implementing Agreement with the International Energy Agency (IEA) to participate in its Task XVIII – DSM and CDM of Programme. The Bureau of Energy Efficiency (BEE) as a Nodal Agency for this Agreement has appointed ABPS Infra to assist it in execution of the following tasks:

- Development of interactions between DSM and Climate Change
- Using DSM programme to mitigate GHG emissions
- Using GHG emissions mitigation programme to deliver electricity system benefits
- Fungibility of DSM and GHG emission trading
- Time of Use pricing and GHG Emission mitigation

Communication of Information about DSM and Climate Change

#### 4.5 Identification of ‘New Financing Resources’ to support transfer of Environmentally Sound Technologies

*Client: United Nations Framework Convention on Climate Change*

The Conference of the Parties (COP) by its decision 3/CP.13, annex II, requested the Expert Group on Technology Transfer (EGTT) to identify and analyse existing and potential new financing resources (public and private) and relevant vehicles in supporting the development, deployment, diffusion and transfer of environmentally sound technologies (ESTs) in developing countries. The COP also requested the EGTT to assess, based on this identification and analysis, gaps and barriers to the use of and access to these financing resources in order to provide information to Parties to enable them to consider the adequacy and predictability of these resources.

The Subsidiary Body for Scientific and Technological Advice (SBSTA), at its twenty-eighth session, endorsed the terms of reference for the EGTT for identifying, analysing and assessing existing and potential new financing resources and relevant vehicles in supporting the development, deployment, diffusion and transfer of environmentally sound technologies in developing countries.

The assignment essentially included,

- Identification and analyse existing and potential new financing resources and relevant vehicles in supporting the development, deployment, diffusion and transfer of technologies for mitigation and adaptation in developing countries;
- Identify and assess gaps in and barriers to the use of and access to these financing resources;

- Recommendations on future financing options and risk mitigation tools within the framework for meaningful and effective actions to enhance the implementation of the technology transfer framework.

## 4.6 Clientele of ABPS Infra

<b>Corporate Entities / Investors</b>	<p>CLP Power India Private Limited                      Erudite Engineers Private Ltd.                      Essar Power Ltd                      Garware Polyester Limited                      Gupta Coalfield and Washeries Limited                      Kalyani Steel Limited                      Lanco Infratech Limited                      Nagreeka Export Limited                      Navayuga Power Corporation Limited                      Neelkamal Realtors Suburban Private Limited                      Pioneer Distilleries Limited                      Senergy Global Private Limited                      Spectrum Power Generation Ltd.                      Usha Martin Limited                      Veolia Environment Services Asia Pvt. Ltd.                      Wartsila India Limited</p>
<b>International Clients</b>	<p>Emerging Markets Ltd., UK                      European Investor active in Renewable Energy                      Genting Group Malaysia                      Ranhill Corporation Bhd., Malaysia                      RE Partners, LLP</p>
<b>Government and Regulatory Commissions</b>	<p>Bureau of Energy Efficiency                      Chhattisgarh Electricity Regulatory Commission                      Forum of Regulators                      Gujarat Electricity Regulatory Commission                      Maharashtra Electricity Regulatory Commission                      Ministry of New and Renewable Energy                      Punjab State Electricity Regulatory Commission                      Rajasthan Electricity Regulatory Commission                      Special Officers to Appellate Tribunal                      Uttarakhand Electricity Regulatory Commission</p>
<b>Industry Associations &amp; Institutions</b>	<p>Himachal Small Hydro Power Association                      Independent Power Producers Association of India                      Indian Wind Energy Association                      World Institute of Sustainable Energy</p>

<b>Utilities</b>	BSES Rajdhani Power Limited BSES Yamuna Power Limited Bhilai Steel Plant (Steel Authority of India Ltd) Chhattisgarh State Electricity Board Maharashtra State Electricity Distribution Company Ltd Maharashtra State Electricity Transmission Company Ltd Maharashtra State Power Generation Company Ltd South East Central Railway The Tata Power Company Limited The Mula Pravara Electric Co-operative Society Ltd. Transmission Corporation of Andhra Pradesh Ltd WESCO, NESCO and SOUTHCO
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## 5 Contacts

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