NEW ENERGY POLICY-A PROPOSAL FOR CONSIDERATION OF GOVERNMENT OF INDIA

Submitted by:

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INTRODUCTION & BACKGROUND:

We are engaged in providing strategic advisory services to our clients with a focus on promoting "Sustainable Development".

We have been active for almost last ten years and we are proud to have developed quite a few innovative ideas which, we believe, will help in rapid economic development in an environmentally sustainable manner.

We have necessary background and understanding of energy sector to be able to confidently suggest, what we believe, could be the way forward for Govt. of India, especially when there is a new paradigm being established for rapid economic growth.

Accordingly, we are pleased to place this document in public domain so that all stakeholders and experts can debate on its contents and suggestions so as to help the Government in evolving a ***comprehensive energy policy*** which will ensure that India's economic growth is sustainable in long run and does not get constrained by 'Fiscal profligacy' as well as 'Carbon profligacy'.

We have analysed various limitations and issues faced by energy sector in India today and proposed policy is formulated to obviate such limitations. Major issues considered are enumerated in Annexure-1.

We have done considerable amount of work in past years whereby we are in a position to prepare detailed roadmaps for each of the policy measure suggested in this synopsis of our detailed exercise.

ENERGY POLICY-MACRO OBJECTIVES:

Energy policy proposed here has following broad objectives:

- Ensuring energy availability on demand, on tap in each and every corner of the country, by year 2022, to improve quality of life & health of people as well as for longterm economic growth on sustained basis (especially initial 10 years of very high growth rates) which will be required for 'poverty elimination'
- Ensure a suitable energy mix which will result in environmental sustainability as well as energy security in terms of energy availability under all foreseeable international geo-political environments.
- Ensure long term predictability and stability of policy regime with corresponding measures even on fiscal side related to energy sector so as to generate confidence in investors
- Ensure globally competitive energy prices
- Ensure no fiscal burden on state and central Governments from energy sector
- Leverage existing systems/ assets to ensure quick implementation of the policy
- Remove unnecessary administrative and regulatory controls which result in delays, disputes, litigations etc. and replace it with a robust mechanism which works over the years based on principles of transparency and accountability

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BROAD OUTLINE OF PROPOSED POLICY:

1. **GOVERNANCE STRUCTURE:**

   Energy sector shall be governed through a single ministry of energy under which separate departments will look after individual energy source and /or subject. Existing ministries will be merged to form a uniform, cohesive energy governance structure.

2. **ENABLING LAW:**
   - All fossil fuels like Coal, Lignite, Crude oil, Petroleum products, Natural gas (including unconventional gases, liquefied gas, compressed gas), electricity from any type of generation would be called 'Energy Products' and all such products would be covered under this policy.
   - A comprehensive 'ENERGY ACT' shall be formulated (on the lines of Electricity Act, 2003) to supercede all the existing Acts and will clearly spell out broad objectives and roadmap for achieving these objectives with provision for timelines governing energy resource development, transportation/ distribution/ pricing/ royalty/ production sharing etc.
   - All provisions related to many of separate existing laws for various individual sectors like petroleum, mining, safety, energy efficiency would be incorporated under this main Act so as to avoid multiple and complicated approval and regulatory processes.
   - The Act will lay main emphasis on laying detailed guidelines (to be made by experts under the Regulatory Authority) to be followed and the principle of self certification (with very strict penalties for default) so as to simplify and expedite the process of implementation and operations of various projects.
   - Companies having contractual rights/obligations in energy sector, under previous Acts/Rules, shall have the option to elect to be governed by new Act or continue to be governed as per contract under previous Acts till the validity of contracts made under previous Acts.

3. **REGULATORY AUTHORITY:**
   - Central and State level Regulatory Authorities shall be established to regulate the operators in the energy sector and protect consumer interest. These Regulators would act independently to ensure fair play, level playing field and would ensure that Regulations reflect the Government Policy.
   - Energy Regulators will not be under the administrative control of Central or State Energy Ministries.

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- CERC and SERCs will be renamed as Central and State Energy Regulatory Authorities and would have wider scope of the energy sector as a whole.
- The Regulators appointed will be professionals from energy sector with technical qualifications.
- Regulator's Role will be mainly to come out with broad, objective guidelines, based on best practices followed, to be applicable to all players in energy sector (to achieve the objectives and follow broad principles of this energy Policy) and will have only exceptional cases to be dealt with on individual basis.
- Regulatory function of PNGRB will be taken over by Energy Regulator. Technical staff of PNGRB will act as a technical wing under CERC for evolving suitable guidelines in gas transportation regulation.
- A new technical wing under CERC will be created to develop regulations for coal sector.

4. <u>EMISSION CONTROL AND MONITORING:</u>

- Considering the global challenges in terms of 'Global Warming' and 'Climate Change' due to emissions of Green House Gases(GHGs), and recognizing that energy sector is major contributor of GHG emissions, the energy policy would aim to achieve 'Low carbon growth path' so as to ensure sustainable economic development of India.
- PAT and REC schemes stand abolished and would be replaced by provisions of this policy.
- The policy would ensure low carbon growth path through other more effective instruments like minimum purchase obligations of different categories of power, robust and transparent price discovery mechanisms and suitable corporate taxation regime linked to emissions. Details of proposed mechanisms are given in Annexure-2.
- Heavy vehicles like trucks and buses would be encouraged to switch to LNG fuel tanks so as to reduce demand for subsidized diesel and at the same time improve economics and reduce environmental impact from such heavy vehicles burning diesel. Infrastructure in terms of LNG dispensation at regular intervals on major highways would be encouraged which will facilitate rapid rate of conversion of heavy vehicles to gas instead of diesel. Existing state owned oil companies will take major initiatives in creating LNG/CNG filling infrastructure along highways.
- Manufacture and sale of electric vehicles would be promoted so as to increase density of such emission free vehicles in major cities, towns.

Rapid transport systems and public transport vehicles like taxis and autos would be encouraged to switch to electric drive so as to reduce the environmental impact of such vehicles in cities/towns. Electric vehicles have built-in advantage as running cost of electric vehicles would be far less than that of even subsidized diesel based vehicle.

- As per existing Company Law requirements under Companies (Disclosure of the particulars in the Report of the Board of Directors) Rules,1988; Indian companies, in 21 identified sectors, are required to report considerable details of their energy consumption as part of the Directors' Report included in the Annual Report. This provision would be made applicable to all companies having statutory audit requirements as per existing Laws. This will help in evolving a mechanism to assess 'Carbon risk' of such companies, without need for any other elaborate scheme administration and, also, consistent with financial reporting. Corporate tax rate would be linked to such 'Carbon risk' to incentivize cleaner energy use to achieve low carbon risk. This will create a very robust foundation for ensuring a 'Sustainable' low carbon growth path.

5. EXPLORATION/DEVELOPMENT/PRODUCTION OF ENERGY:

- Right for exploration and development of mineral energy resources would be given under a single license whereby the license holder will have right to extract any of the energy resource from the area for which it has been given license. This will avoid disputes in areas where multiple energy sources are found and avoid disputes in areas like CBM, SHALE GAS etc. This will also reduce the risk of investor in exploration activity.
- Any company or group of companies registered in India or abroad, having networth in excess of minimum stipulation (say INR 50 crores), would be eligible to apply for right of exploration/ development/ production of energy in India.
- DGH, currently under Petroleum Ministry, will be the new licensing authority for exploration/development/production of all fossil energy resources like coal, oil, gas, CBM and any other unconventional fossil energy source. DGH will be renamed as "Directorate of Energy Exploration (DEE)".
- DEE will develop a grid map of India dividing total area of the country in various blocks of about 100 sq.km. each. (DGH has already done considerable amount of work in this direction for oil/gas exploration so it is only a minor extension of activity).

- Each of such earmarked block will then be available for exploration/ development/ production of any fossil energy source found in that block. Such availability will be on the principle of 'OPEN ACREAGE' system generally prevalent in oil&gas sector. Details of this mechanism are given in Annexure-3.

6. POWER GENERATION:

- Power generation facility shall be classified into five main categories as follows:

Category	Type of power covered in category
A	Solar power
B	Non fossil based emission less power from sources like wind, hydro, nuclear, geo thermal, tidal etc.
C	Gas based power
D	Dirty power based on sources like coal, lignite, liquids etc.
E	Waste utilization based eg. Agro waste, municipal waste, industrial waste etc.

Within these main categories, Regulators/ CEA will devise sub classifications for monitoring of power sector.

- Power generation facility of any type (except for nuclear power) shall be allowed to be established by any company (Indian or foreign) by a simple registration of interest with Central and respective State Regulator.
- Nuclear power generation facility can only be established by Nuclear Power Corporation of India. NPC may involve private sector partners but management control will have to be with NPC.
- Power Project implementation and fuel supply arrangements will be entirely project developer's responsibility.
- Old and inefficient coal based power generation facilities (especially in state/central sector commissioned before 1995 –to be identified and notified by CEA) would be obliged to adopt the concept of 'Coal to Gas repowering' by retrofitting their existing facilities to gas based generation facilities or discontinue their operations by year 2020. Such a concept will help in enhancing power generation capacity at the least cost and in the

least possible time and at the same time help in ensuring major reduction in GHG emissions.

7. **ENERGY INFRASTRUCTURE DEVELOPMENT AND USAGE:**

- All facilities created for imports, processing, storage and distribution, pipelines, power lines and any other means for transport of energy products shall be classified as energy infrastructure.
- Any company, Indian or foreign, can establish energy infrastructure project in India.
- All energy infrastructure projects, other than gas pipelines or power transmission lines, can be established by a registration of simple expression of interest with Central and respective State Regulator.
- All crude oil and petroleum product pipelines will have to operate on 'Open Access' basis.
- Natural gas pipelines will be classified in following three categories:
  (a) National gas grid (operating at high pressure)
  (b) State gas grid (operating at high pressure)
  (c) Distribution networks (operating at low pressures)
- Power transmission and distribution will be classified in following three categories:
  (a)National power grid (operated by Powergrid Corp.)
  (b) State power grid (operated by state transmission utility)
  (c) Power Distribution network at each city/town/village level (existing distribution companies to be restructured to achieve this distribution model)
- Major targets and timelines for achieving these targets would be as follows:

Sr.	Target	Year for completion
1	National gas grid to connect each state	2020
2	State gas grids to connect all towns with population in excess of 10,00,000	2018
3	State gas grids to connect all towns with population in excess of 500,000	2020
4	All villages to have gas distribution network	2022
5	Each electrified city/town/village to have local power distribution company with 24X7 power	2018

	supply	
6	All villages to get 24X7 electric supply through local distribution company	2022
7	Local distribution level T&D losses of power to be reduced to 5% max.	2020

- Retailing of energy products for automotive sector will be delicensed and any interested company would be allowed to develop such retail outlets. New outlets to be developed could have facilities for dispensation of any one or more of petrol, diesel, LPG, CNG, LNG and facility for battery recharging for electric vehicles. Interested developers would have to simply register their interest indicating physical location and they would be required to follow technical guidelines to be issued by the Regulator for retail outlets for cities or on highways.
- Detailed provisions related energy infrastructure development and operations mechanism are given in Annexure-4.

8. <u>MARKET MECHANISM AND TRADE:</u>

- Imports/exports and trading of energy products would be allowed without any restrictions.
- Energy products produced or imported will be allowed to be sold at market determined pricing and there would be no Govt. control on pricing except in case of gas and power distribution as covered in this policy.
- A robust nationwide energy market platform will be provided by creation of an ‘ENERGY EXCHANGE’ for facilitating online trade of energy products (at least for power of each of five categories, gas and coal). Existing power exchanges and/or commodity exchanges could be considered for assuming this role.
- All sale/purchase transactions for coal, gas and power would be necessarily required to be made on such exchanges only, so as to ensure transparency in price discovery and ensure arms length deals. Details of operating mechanisms are given in Annexure-5.
- All existing agreements for coal, gas and power sale/purchase can continue for its term if the parties to agreement so wish or else they could opt to accept the proposed mechanism of trade through exchanges (for such change both parties would have to agree to terminate their existing agreements).

- This kind of market mechanism will ensure transparency and avoid time consuming formalities of competitive bidding, PPA negotiations, fuel supply/ transportation agreements etc. for each of the consumer/producer. Further, settlement through exchange mechanism would eliminate credit risk for producers and it would enhance investor/lenders confidence in funding such projects.
- The contracts available on energy exchange can be traded multiple number of times till its due date. However, on Settlement Date the contract will have to be settled between contract originator and last buyer through physical delivery only and no cash settlement would be allowed in such case. This will ensure that prices discovered do not get distorted by speculation.

9. TARIFF AND PRICING MECHANISMS:

- As a matter of policy, all energy products will be sold at market determined price and there would be no Government intervention in determining basic price of energy products (except as specifically provided in this policy or in case of national emergency).
- As explained an efficient market mechanism in terms of online trade for energy products would be made operational so as to ensure a fair, transparent price discovery without any disputes in value chain development.
- Price as decided on the energy exchange would be the basic price payable by the Buyer and gross price realization of the Seller.
- Thus, the total " ALLOWABLE PURCHASE PRICE (APP)" of any energy product by the buyer on the Energy Exchange would be computed as per following:
  (a) Price as paid on Exchange ; plus
  (b) Allowable losses in transmission (as published by Regulator from time to time); plus
  (c) Transmission tariff as payable to open access carriers; plus
  (d) Applicable GST
- Tariff as payable by any user of the Energy Infrastructure (including 'Open access' transmission system operators for gas and power) would be computed on principle of determining Annual Revenue Requirement (ARR). This would,also, operate on principles of self computing and widely published relevant information.

- In case of distribution networks for gas and power the charges allowed to be levied by the distribution company to the consumers would be computed on following principle:
  (a) APP of the energy product; plus
  (b) APP of maximum allowable losses (as published by Regulator); plus
  (c) Distribution tariff as allowed by Regulator's periodic notifications.
- Detailed provisions of tariff determination mechanism are given in Annexure-6.

10. <u>FISCAL MEASURES:</u>

- All budgetary support for subsidies on energy products would be eliminated. Subsidy for deserving population would be by way of direct cash transfers from Govt. to individual beneficiary's account rather through arbitrary price controls and cross subsidization mechanisms. This will go a long way in achieving much desired fiscal consolidation and avoid 'Fiscal Profligacy'.
- All energy products would be covered under the ambit of GST and no other taxes would be separately levied (all other individual sector specific central/state levies eg. Cess on crude oil, special duties on petroleum products, electricity duty on power etc. would be abolished). Such GST paid would be available for setoff by consumers having GST liability on their products/services. This will bring in uniformity and level playing field for healthy competitive market environment in the economy.
- Royalty and production share payable by energy producers will not be considered as tax and it will have to be paid out of basic price realized by the producer.
- Rupee shall be made fully convertible so as to achieve truly, internationally, competitive cost of energy products for India's economy. This will help to achieve fair share in international trade and markets. This single measure would have major liberalization impact and would attract huge private capital inflow in many other areas of economic development.
- Import/export duties on all energy products shall be zero.
- Corporate tax structure would be simplified by eliminating all specific exemptions and concessions being granted and by introducing a taxation rate regime (with a floor and ceiling, say of 5 &25%) which is linked to 'Carbon risk' of the company.
- All existing longterm tax exemption schemes will continue to be applicable, as per earlier provisions till its applicable time limit, if the

company wishes to avail them and in such cases the company's tax liabilities will be as per earlier provisions.

- There would be a uniform rate of depreciation allowed for both book as well as IT purpose (for all companies including energy sector companies) so as to simplify accounting and tax calculations. This will also help in eliminating need for complicated tax structure like MAT.
- Such a taxation regime is aimed to achieve net cash retained by corporates (post tax) and Govt. collection of total tax revenue to remain more or less unaltered (max+/- 5% variation) despite a radical change in energy pricing structure.
- A longterm roadmap for levy of "Carbon tax" on coal and lignite shall be unveiled by the Central Government, replacing current cess of INR50 per Tonne of coal. This road map would give clear signal to various stakeholders to plan their course of action to support efforts of low carbon growth path of the economy. Carbon tax could be gradually increased from current INR50/ T to INR 2000 /T to discourage use of dirty energy source over the period of time.
- Such a fiscal regime, with a long term stability, will ensure that economic growth path follows sustainable route with respect to risk of 'Carbon profligacy'.