

It's catch-up time for India

With an exploding population that will soon pass China but with only 20% of China's installed capacity, will India ever be able to catch up? BY JOEL LAYKIN, SECRETARY GENERAL, IPPF

First, the bad news. India's installed capacity of available electric power is less than beleaguered Pakistan on a per capita basis.

The obvious direct correlation between available Installed Electric Capacity (IEC) and the "good life" that billions aspire to means that unless there is a radical change within India's body politic and its entire national value system, the world's largest social democracy may be eternally doomed to stagger in the wake of the world's largest totalitarian dictatorship – China.

Some simple comparisons
 China – 1.3 billion pax, IEC – 920K – MW
 USA – 330 million pax, IEC- 865K – MW
 India – 1.2 billion pax, IEC – 168K – MW

The PRC shot past the USA's shrinking IEC early last year without so much as a sparkler on a cake much less a triumphant Chinese fire works display celebrating a somewhat pyrrhic triumph. The hollowness of this particular statistical victory is the obvious need to attain an "IEC" of 3.2 million MW to match the USA on a per capita basis. That is of course based on today's 1.3 billion population figure. America's rapidly rusting industrial capacity is evaporating while there are only just so many back-yard swimming pools available to heat up.

India's official mega-wattage of 149,391 is from their Ministry of Power's May 31st, 2009 update. Street-smart current assumptions put the latest figure at between 151,000 to 170,000 MW. In this

same seven month period China's installed capacity rose by an estimated 68,000 MW.

With an exploding population that will soon pass China but with only 20% of China's installed capacity, will India ever be able to catch up?

The "Power for All" campaign to achieve a nationwide capacity of 200,000 MW by 2012 seems to this writer to be a criminally empty and cynical bombast. It will still be "Power for a Few" which must meet the growing needs of India's I.T. industry, India's national gold tooth in a mouth full of ineptitude and political slothfulness.

Bombay and the road to Tashkent

The upcoming "Power-Gen India and Central Asia" (PGICA) occurs less than two weeks before the Asian Development Bank's Annual Meeting Scheduled for May 1st – 4th in Tashkent, Uzbekistan.

This year, PGICA is positioned in Bombay for April 21st to 23rd. The alignment of these two major gatherings will shift the emphasis on power, energy and infrastructure toward a new center of gravity – "South and Central Asia".

PennWell's PGICA presents an important opportunity for the continued introduction of new technologies and financial resources in the region. It is a bully pulpit for key messages carried by independent power producers and developers.

IPPs, both Indian and foreign investors, possess the project management, expertise, risk assessment experience and access to capital.

A key message that could radiate from the upcoming PGICA should be the creation of a far

friendlier investment environment for global IPP developers and investors. The timing is ripe for such changes. China has pretty much locked out traditional power developers. India should throw open the doors for a new generation of global investors.

To achieve this, India's regulatory frameworks must be altered to create strong and adaptive formulas. It is a misnomer to assume that a "strong" regulator is automatically reactionary or unnecessarily restrictive. We are talking about strength with transparency and flexibility.

Such procedural improvements will by its very nature contribute to economic growth and enable IPP's to support this growth. This scenario had already occurred in China in the nineties and across much of South East Asia.

A fundamental policy thread that would (or should) run through this potential development is that it must be rooted in reliable, safe and "clean" power along with "competitive" access to electricity.

The juxtaposition of PGICA in Bombay and ADB in Tashkent within two weeks of each other will put a spotlight on cross-border development policies and improvements in the regulatory frameworks for the movement of electric power. The Mekong's regional power sharing agreements have already invented the wheel. India has an opportunity to take the lead in such initiatives in South and Central Asia.

Bridging the gulf

With most available power consumed in urban environments, the "rural vrs urban" divide continues to be a social and political problem. The gulf between such sophisticated urban high tech centers as Bangalore and Hyderabad and the impoverished country-side must be bridged.

Rural access to electric power is the vital ingredient in addressing the Gulf between rich and poor, urban and rural. In a recent IPPF private Power Pow-Wow we discussed these issues with Mr. James Maguire, Regional Managing Director, Aon Risk Services. "It's all about infrastructure," Maguire said. "India must invest and allow more foreign investment to enter the market-place. 75% to 80% of oil must be imported. India needs to focus more on alternative forms of energy, solar, wind and geo-thermal", Maguire added.

Calling a spade a shovel

After India successfully launched its first unmanned lunar mission along with its successful positioning of ten earth-orbiting satellites from a single rocket, papers like the Wall Street Journal suggested that the U.S. was about to lose its scientific edge. The journal complained that "India is going to the moon while the U.S. is headed into the sunset". With over 50 satellites of various types launched since 1975 and ambitions now for a trip to Mars, India has certainly accomplished a lot in space technologies and other "showcase" areas of national achievement.

The denizens of Davos recently predicted that India will overtake leading European countries

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and even Japan by 2020. Asia's richest tycoon (4th wealthiest on the planet), the 52 year old, Mr. Mukesh Ambani, has given new meaning to the term "wretched excess" with his 27 floor US\$2 billion mansion being built within a Frisbee throw of Mumbai's massive slums made famous by that Oscar winner in 2009.

These isolated "spikes", the outer space achievements, the growing list of India's "Slum Dog Billionaires", are "token" visions that cloud the reality. Yes, India will grow, India will dominate its own co-prosperity sphere from the gulf to and through Central Asia. But... To catch up with China, to reach its "Great Power Status" and fulfill its global ambitions, India must bite a large number of very hard bullets.

- Despite India's world class I.T. sector, the country manages to produce only 50 to 60 PhDs in computer science annually, about the same number as Israel (pop. 7.5million vs 1.1 billion), 4% of America's 1,400 - 1,500 annual crop of Computer Science PhD's.
- The Global Hunger Index by the International Food Policy Research Institute recently indicated that half of India's small children (approx 60 million) are still malnourished with an estimated 200 million Indians suffering from hunger.
- The aggregate GDP spending an education overall is half that of Kenya.
- India's literacy rate is 63% compared with 92% for China.
- Only 7% (or less) of India's college age population actually attends college, a fraction of ASEAN's average university attendance.
- India's overall technical / scientific R & D is 20% that of China's.
- India's installed electric capacity is around a sixth that of China.

The good news is that the above are all subjects of growing national debate, concern and awareness within India's open and free body politic, academia and media. Industry conferences is where many of India's experts speak out eloquently on key elements of energy and power. One such important annual event is the Independent Power Producers Association of India's (IPPAI) annual retreat / conference usually held in Goa in July. This particular event is a marvelous inclusive forum featuring speakers drawn from all over Asia. The IPPAI's Retreat/Conference even includes power experts from Pakistan and Bangladesh.

While India needs to proceed on a number of broad fronts from food distribution, education and R & D to exports (#23rd among all trading nations vs #1 for China) we believe that quantum leaps in energy and power technologies, installation and distribution should be the key focus for growth rather than trips to Mars and mapping the moon.

The problem is that such basic issues as really living up to the "Power for All" slogans simply isn't as sexy as shooting up more satellites.

Fueling India's growth

Recent discoveries has positioned India as having the 6th largest coal "reserves" on the planet. However, most of these coal resource are still in the "potential" category due to location. About half of India's coal is hard to get to. The government owned NTPC, India's largest power producer depends on



coal for 82% of its generation.

In the private sector, the Hong Kong based China Light and Power (CLP) has made a solid investment commitment in India. Their "GPEC" 655 MW combined cycle plant with turbines that burn both gas and naphtha is a shining example of IPP's progressive leadership in the industry. We should add also that CLP is recognized in its home town (Hong Kong) as an enlightened corporate entity, light years different from the other HK based entity (HK Electric, owned and operated by the civic minded Li family).

What India needs are more CLP's.

On other fuel fronts, India is the only country outside of Brazil where bio-mass and related bio-fuels solutions have developed enough critical mass of production and distribution to be able to withstand the eventual collapse of oil due to breakthroughs in either hydrogen or "really clean" coal technologies.

Wind and solar developments in India are still marginal at best. India's 86 thermal power plants continue to run on coal and that's not going to change. What will change is the treatment of coal and the impact of new technologies.

Now, for some good news – the center is holding

India draws ever closer to the United States, a phenomena unthinkable back in the Krishna Menon era and the "Ruble connection". Prime Minister Manmohan Singh was returned to power with a widened mandate and an expanded "center". India's 714 million voters (more than the EU and USA combined) effectively marginalized radical elements of both the left and the right.

The watershed U.S. / India nuclear deal of July 2008 was in itself an important milestone. It has led to a better understanding between Washington and New Delhi. Newsweek's Fareed Zakaria recently expressed the view that "India's objectives are exactly aligned with America's." He was referring of

course to the over-all South Asian realpolitik picture (which isn't pretty) - defeating the Taliban, establishing an "India" friendly government in Kabul, blocking China's resurgent influence in Pakistan, hanging on to Kashmir, etc....but I digress.

Where there's a will....

India has a window of opportunity. It has a government with enough parliamentary majorities to:

1. Sweep away bureaucratic obstacles to international investment. Invite in a new "gold rush" for developers.
2. Establish a national emergency program to really increase power generation in quantum leaps. China should be viewed as India's "sputnik" (1957). A few years after sputnik, Kennedy said, "we choose to go to the moon....and they did."
3. Sort out Kashmir. It's clogging up national resolve and focus on what's really important and is a major cause for South Asian stress.

India has a free press, functioning democracy with supportive institutions, a reasonably clean legal system and a relatively transparent government. What it lacks is a collective sense of "emergency" plus the stumble - bumble of its bureaucracy. It is not China where big brother can order up a dam (3 gorges) that displaces three million people and kills at least 20,000 more without a whisper of protest.

It took Pearl Harbour to galvanize America, Nazi pre-occupation with Heavy Water from Norway to create America's rush to make an atomic bomb before Hitler got his. Unfortunately for India, Rome is burning too slowly for anyone to smell the smoke. Their government must act now to achieve the growth that their country deserves before it is too late!

This is a personal opinion item not necessarily reflecting the views of the membership.