

# Developing Business with Indian Collaboration

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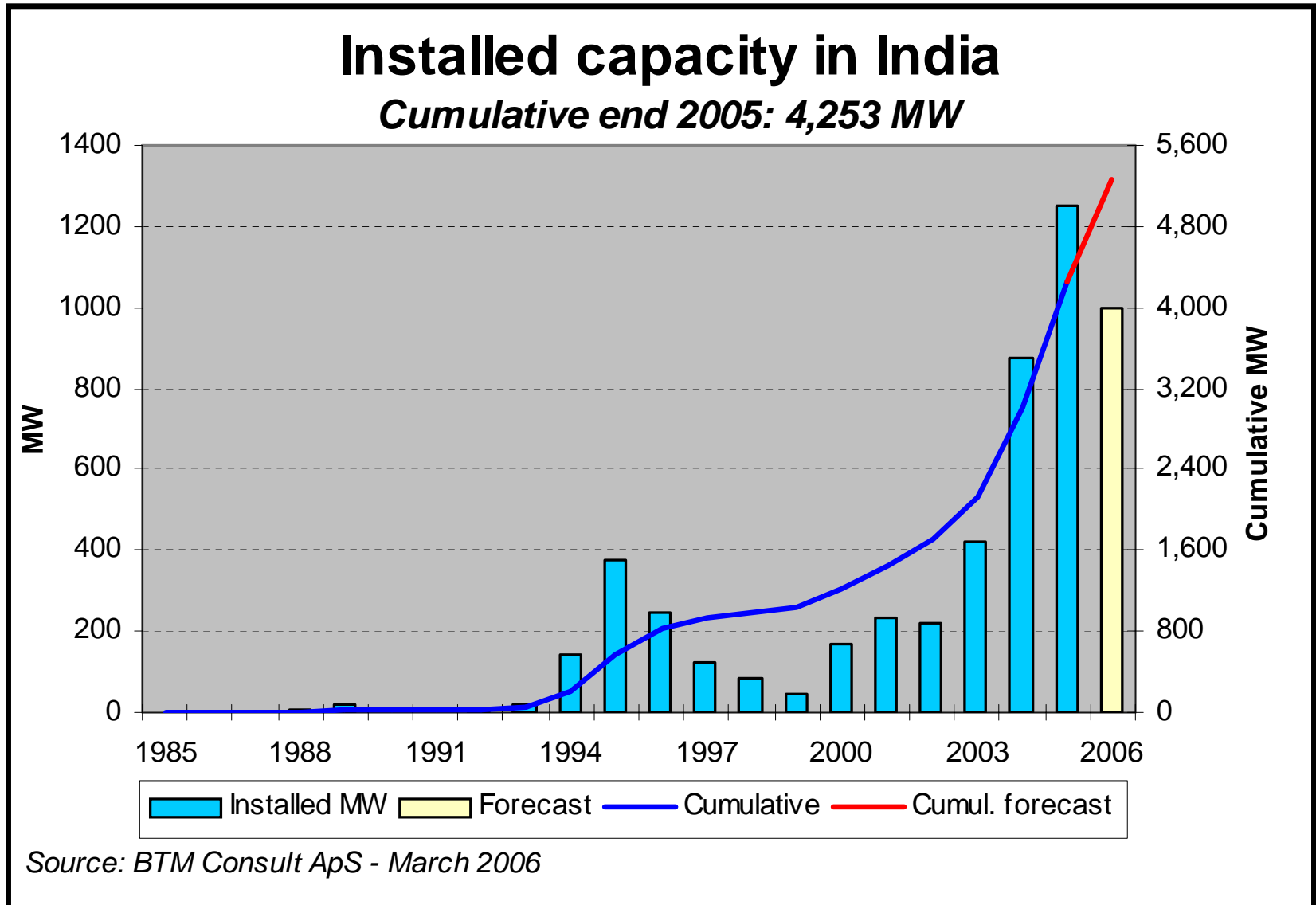
**A special thank you to Per Krogsgaard of BTM Consult for his valuable input**

- The early 80 's
- The attraction of India and establishment of local co-operation
- Why India has been such a success
- The bright Indian future

- The Danish turbine industry in its infancy
  - Two large export markets
    - California
    - INDIA
  - Much had to be learned
    - Financing
    - Transport
    - Large scale installation
    - Training in turbine erection and operation.
    - Service and correct manuals

# A firm start leads to big things

## Denmark 3087 MW Acc by end 2005



- Stable political regime
- No technical trade barriers to entry
- Good local partners in RRB
- Respect for IPR

The result has been a manufacturing base that is ahead of its time. The US is only now attracting investment.



## Top Ten markets ranked in order of annual installation 1995 to 2004

Position	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
1	Germany	Germany	Germany	Germany	Germany	Germany	Germany	Germany	Germany	Spain
2	India	India	Denmark	USA	Spain	Spain	USA	Spain	USA	Germany
3	Denmark	Denmark	Spain	Spain	USA	Denmark	Spain	Denmark	Spain	India
4	Netherlands	Spain	India	Denmark	Denmark	India	Italy	USA	India	USA
5	Spain	UK	P.R. China	Italy	Greece	USA	India	India	Austria	Italy
6	USA	Netherlands	UK	India	Italy	Italy	Japan	Netherlands	Japan	Portugal
7	UK	Italy	Netherlands	Canada	Netherlands	Greece	Denmark	Japan	Netherlands	UK
8	Sweden	P.R. China	Italy	P.R. China	Sweden	P.R. China	UK	Australia	Denmark	Japan
9	P.R. China	Sweden	USA	P.R. China	India	Japan	Greece	Italy	UK	Netherlands
10	Italy	USA	Sweden	Netherlands	India	UK	P.R. China	Greece	Italy	P.R. China

Source: BTM Consult ApS - September 2005

# India as a champion of wind and renewables.

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- **Ministry of Non-conventional Energy Sources, India, to the fore in promoting renewables**
  - Recognising the importance of renewable energy sources as the best alternative to conventional fuels, the Government of India, as far back as in 1981, set up a Commission for Additional Sources of Energy in the Department of Science and Technology. Later on this was followed by the setting up of a full fledged independent department, the Department of Non-conventional Energy Sources in 1982, converted into the Ministry of Non-conventional Energy Sources (MNES) in 1992
- India has a larger installed capacity in wind today than Denmark
- India has succeeded in two other major ways
  - Created a sophisticated manufacturing industry
  - Created a global champion in the form of Suzlon.

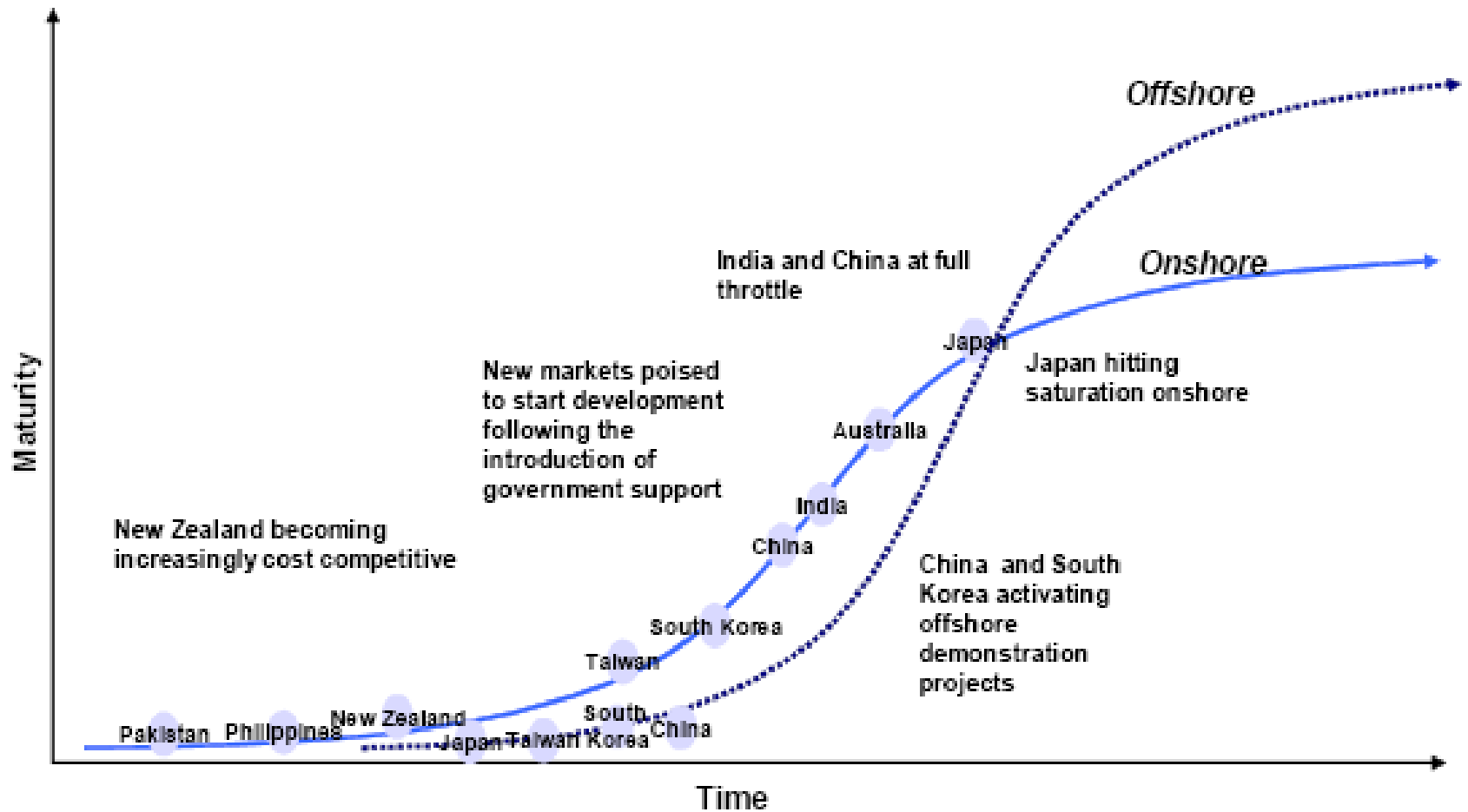
# India in the next 10 years

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- The Indian economy will grow enormously
- The demand for electrical power will increase in tandem
- The Indian Government has created a stable environment for its wind and renewable industries

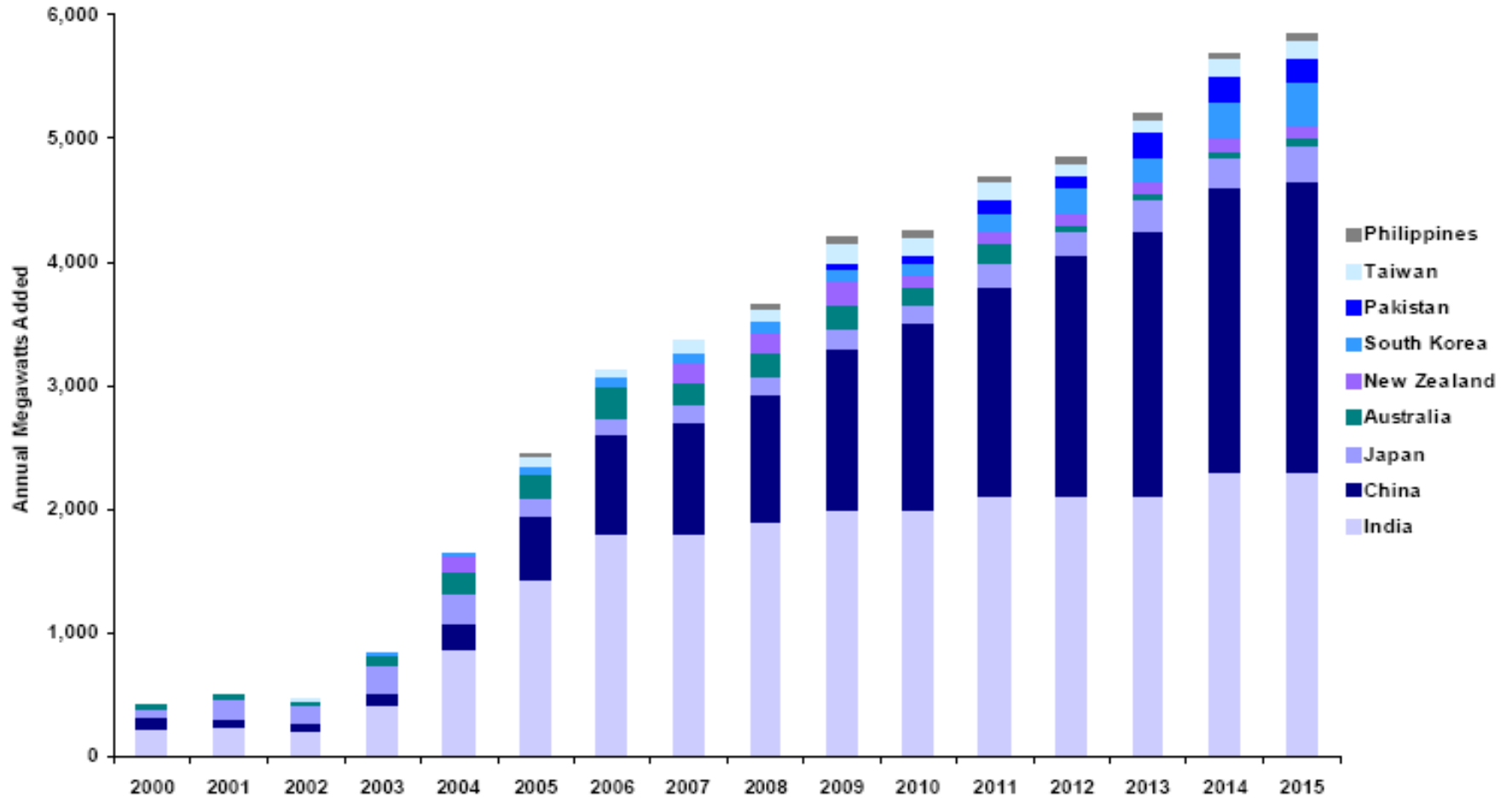
The vision and example shown by the Indian Government is a template for success that many of its neighbours can emulate to their and India's advantage. It is a lesson to us all in how clear political vision and commitment can foster a leading edge industry.

# Maturity in Asian Markets



Source: Emerging Energy Research

# What future for India?



Source: Emerging Energy Research



# Forecast to 2015 (Asia)

	Cumulative installed capacity (MW) by end of in 2004	Installed capacity (MW) in 2004	Forecast 2005-2015											Installed capacity between 2005-2015	Cumulative installed capacity (MW) by end of 2015
			2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015		
P.R. China	769	198	250	400	500	600	600	1,000	1,500	1,500	2,000	2,500	3,500	14,350	15,119
India	3,000	875	900	1,000	1,000	1,200	1,200	1,500	2,000	2,000	2,500	3,000	3,500	19,800	22,800
Rest of Asia: Indonesia, Malaysia, Philippines, Taiwan, Thailand, Vietnam, etc.	16	4	30	50	50	75	75	100	150	150	200	250	250	1,380	1,396
<b>Total South &amp; East Asia</b>	<b>3,784</b>	<b>1,077</b>	<b>1,180</b>	<b>1,450</b>	<b>1,550</b>	<b>1,875</b>	<b>1,875</b>	<b>2,600</b>	<b>3,650</b>	<b>3,650</b>	<b>4,700</b>	<b>5,750</b>	<b>7,250</b>	<b>35,530</b>	<b>39,314</b>

Source: BTM Consult ApS - September 2005

**WIND,**

**Proving that  
power can  
change!**

