Here's a **tabulated overview** of the **cost of wind turbine generators (WTGs)** in India, with an example and references:

| **Component** | **Cost Estimate** | **Example** | **Reference/Source** |
| --- | --- | --- | --- |
| **Capital Cost (per MW)** | ₹5 - ₹7 Crores (₹50 - ₹70 Million) | - | Industry average (varies by turbine model and location) |
| **Example (1 MW turbine)** | ₹5 - ₹7 Crores | Example: 1 MW wind turbine | Suzlon, GE Renewable Energy, etc. |
| **Example (2 MW turbine)** | ₹10 - ₹14 Crores (₹100 - ₹140 Million) | Example: 2 MW Suzlon S66 turbine | Suzlon Energy, Siemens Gamesa, etc. |
| **Operation & Maintenance** | ₹15-20 Lakhs per MW per year | - | Industry norms |
| **Land & Infrastructure** | Additional 10-20% of total cost | Land, grid connection, civil works | Project-specific costs |
| **Government Incentives** | Viability Gap Funding (VGF), GBI, AD | - | MNRE, WEAI, NREDCAP (Policy Documents) |

**Example Breakdown:**

* **1 MW Suzlon S66 Wind Turbine:**
  + **Capital Cost:** ₹5 - ₹7 Crores
  + **Land & Infrastructure:** ₹50 Lakhs - ₹1 Crore
  + **Total Project Cost:** ₹6 - ₹8 Crores (approx.)
* **2 MW Suzlon S66 Wind Turbine:**
  + **Capital Cost:** ₹10 - ₹14 Crores
  + **Land & Infrastructure:** ₹1 - ₹2 Crores
  + **Total Project Cost:** ₹12 - ₹16 Crores (approx.)

**Key Considerations:**

* **Government Policies:**
  + The **National Wind-Solar Hybrid Policy** and **Viability Gap Funding (VGF)** aim to reduce project costs.
  + **Generation-based incentives (GBI)** and **Accelerated Depreciation (AD)** help improve the financial viability of wind projects.

**References:**

* **Ministry of New and Renewable Energy (MNRE)**: Government body overseeing renewable energy policy and schemes in India.
* **Suzlon Energy**: Leading wind turbine manufacturer in India, providing cost estimates and project support.
* **Wind Energy Association of India (WEAI)**: Provides reports and data on wind turbine cost trends.

This table provides a clear view of typical costs associated with wind turbines in India, including capital expenditure, operational costs, and the government incentives that can impact the financials of a wind power project.

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wind turbine generator cost in india with example and referenece in tebulated form company wise

###### ChatGPT said:

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Here is a **tabulated overview** of the **cost of wind turbine generators (WTGs)** in India, broken down by **company**, with example turbines and references for each:

| **Company** | **Wind Turbine Model** | **Capacity** | **Capital Cost per MW** | **Example Total Cost (for 2 MW turbine)** | **Key Features** | **Reference/Source** |
| --- | --- | --- | --- | --- | --- | --- |
| **Suzlon Energy** | Suzlon S66 | 1.25 MW – 2.1 MW | ₹5 - ₹7 Crores (₹50 - ₹70 Million) | ₹10 - ₹14 Crores (₹100 - ₹140 Million) | Popular for low-wind speed regions, strong market presence in India | **Suzlon Energy** official website, Reports |
| **Siemens Gamesa** | SG 1.4-132 | 1.4 MW | ₹5.5 - ₹7.5 Crores (₹55 - ₹75 Million) | ₹11 - ₹15 Crores (₹110 - ₹150 Million) | High efficiency, used in medium to high wind speed areas | **Siemens Gamesa** official website, Industry reports |
| **GE Renewable Energy** | GE 1.4-132 | 1.4 MW | ₹5.5 - ₹7 Crores (₹55 - ₹70 Million) | ₹11 - ₹14 Crores (₹110 - ₹140 Million) | Flexible for both onshore and hybrid setups | **GE Renewable Energy** official website |
| **Nordex Group** | N60/130 | 1.4 MW | ₹5.5 - ₹7.5 Crores (₹55 - ₹75 Million) | ₹11 - ₹15 Crores (₹110 - ₹150 Million) | Offers highly efficient turbines for complex terrains | **Nordex Group** official website |
| **Suzlon Energy** | Suzlon S66-2 MW | 2 MW | ₹5 - ₹6.5 Crores (₹50 - ₹65 Million) | ₹10 - ₹13 Crores (₹100 - ₹130 Million) | Best for moderate wind speeds, low operational cost | **Suzlon Energy** official website, Industry news |
| **ReGen Powertech** | ReGen R100/1200-60 | 1 MW | ₹5 - ₹6 Crores (₹50 - ₹60 Million) | ₹5 - ₹6 Crores (₹50 - ₹60 Million) | Cost-effective, ideal for projects with lower CAPEX requirement | **ReGen Powertech** official website |
| **Inox Wind** | Inox 2 MW | 2 MW | ₹6 - ₹7 Crores (₹60 - ₹70 Million) | ₹12 - ₹14 Crores (₹120 - ₹140 Million) | Well-suited for higher wind regimes, durable and efficient | **Inox Wind** official website |

### Key Points:

1. **Capital Cost per MW**: This is the general cost for the turbine and its installation. It can range from ₹5 to ₹7 crores per MW depending on the turbine manufacturer and the specific model.
2. **Example Total Cost**: This gives a rough idea of the total cost for a 2 MW wind turbine, considering the installation and commissioning costs.
3. **Company-Specific Features**:
   * **Suzlon Energy**: One of the largest players in India with turbines for low wind speed areas.
   * **Siemens Gamesa**: Known for high-efficiency turbines, often used in medium to high wind regions.
   * **GE Renewable Energy**: Offers turbines that are versatile for both onshore and hybrid wind projects.
   * **Nordex Group**: Specialized in turbines for complex terrains and regions with diverse wind conditions.
   * **ReGen Powertech**: A cost-effective option for wind projects with budget constraints.
   * **Inox Wind**: Focuses on providing efficient turbines for regions with higher wind speeds.

### Government Incentives:

In addition to turbine prices, several **government policies** help reduce the overall project cost:

* **Generation-Based Incentives (GBI)**
* **Accelerated Depreciation (AD) benefits**
* **Viability Gap Funding (VGF)**
* **National Wind-Solar Hybrid Policy**

### References:

1. **Suzlon Energy** - [Official Website](https://www.suzlon.com)
2. **Siemens Gamesa** - [Official Website](https://www.siemensgamesa.com)
3. **GE Renewable Energy** - Official Website
4. **Nordex Group** - [Official Website](https://www.nordex-online.com)
5. **ReGen Powertech** - [Official Website](https://www.regenpowertech.com)
6. **Inox Wind** - [Official Website](https://www.inoxwind.com)

This table provides a company-wise breakdown of the **cost and example turbine models** available in India, highlighting different manufacturers' offerings in the Indian wind energy market.