The Korea Green IT Policy and Efforts for Energy Conservation

October 4, 2012

Korea Green Business Association
Chairman    Paeng, Jung Kook
Current Status of Green IT
Realizing the Nation Leading Global Green IT

Visions

Objectives

9 Core Challenges

Green of IT (3)

- World’s Best Green IT Product Development
- and Strategizing the Export
- Promotion of Greening the IT Service
- Establish Safe and 4 Times Faster Network

Green by IT (6)

- Transform into the Low Carbon Working Environment Using IT
- Realizing the IT-based Green Life Revolution
- Greening the IT Fusion Manufacturing Industry
- Transforming into the Smart Green Transportation/Distribution
- Establishing the Intelligent Electrical Grid Infrastructure
- Establishing the Intelligent Real-time Monitoring and early action system
National Strategy for Green IT
– Reduction on Carbon Emissions by Green IT

By 2020, Reducing 8 billion tons of Carbon Emissions throughout the world by using IT

[GeSI, ’08]

- Optimizing the building energy management (1.68 billion tons)
- Establishing Smart Grid (2.38 billion tons)
- Intelligent transportation and distribution (2.28 billion tons)
- Reducing paper usage (0.13 billion tons)
- High efficiency of the manufacturing process (0.97 billion tons)
- Diffusion of working remotely/video conference (0.36 billion tons)

Green by IT

Green of IT

Green PC, Green Display
Green DataCenter
Cloud Computing
National Strategy for Green IT – the Progress

Establishment and Promotion of the Strategy for Green IT on a National Scale

- The concern for insufficient creation of synergy comes up due to the planning by departments
- Establishing the "National Strategy for Green IT", the full-scale Green IT policy on the pan-governmental level (‘09)

Green IT Strategy of the Government

Departmental Strategy
- The Ministry of Knowledge Economy: Announced the IT Industrial Strategies for the Green Growth (‘09.1.15)
- Ministry of Public Administration and Security: Announced the Promotion of the Green Informatization for the Low Carbon Green Growth (‘09.1.16)
- Korea Communications Commission: Announced the comprehensive plan for Green Communications (‘09.3.16)

Integrated Policy
- The Green Growth Committee: Announced the Pan-departmental "National Strategy for Green IT" (‘09.5.13)
  - Announced the plans for activating ESCO industry for industrializing energy conservation (‘10.10.20)
  - Plans for efficiency of the Green Economy through the electronic documents (‘10.11.19)
  - Announced the diffusion of the Cloud Computing and the strategy for reinforcement of competitiveness (‘11.5.11)
National and International Initiatives on the Climate Change

The International Initiatives

- Climate Change Agreement
- Kyoto Protocol
- Bali Action Plan
- Discussion on the Post Kyoto System

The Korean Initiatives

- Proclaiming the Green Growth (President’s congratulatory speech) 2008.8
- Setting the Reduction Plan 30% reduction by 2020 2009.11
- Enactment of the fundamental law on low carbon green growth 2010.1
- greenhouse gas energy promote the management by objective 2011.3
- Reviewing Introduction of Cap-and-Trade 2015

Key Dates:

- 1992: UN Climate Change Agreement (Rio de Janeiro)
- 2005.2: Effectuation of Kyoto Protocol (Russia ratified)
- 2008.1: Financial Crisis
- 2008.12: Effectuation of Kyoto Protocol
- 2010.12: 15th Conference of Parties (Copenhagen, Denmark)
- 2011.12: 16th Conference of Parties (Cancun, Mexico)
- 2012.12: 17th Conference of Parties (Durban, South America)
- 2012.12: 18th Conference of Parties (Qatar)

- Establishment of Green Growth Committee 2009.2
- Establishment of Global Green Growth Institute (GGGI) 2010.6
Management by Objective and Government Support
Greenhouse Gas Reduction Goal of Korea in 2020

- Announced the reduction goals by sectors and business categories in 2020 (‘11.7.12)
- Reduction of Industry 18.2%, Development 26.7%, Transportation 34.3% Home/Business 26.9%, Agriculture and forestry/ Fishery 5.2%, Waste 12.3%

Expected Emissions 2020: 813 million tons CO₂eq
- Industry: 56.0%
- Development: 13.2%
- Transportation: 22.0%
- Home/Industry: 2.3%
- Agriculture & forestry, fishery: 3.6%
- Waste: 30%

Allowed Emissions 2020: 569 million tons CO₂eq
- Industry: 53.4%
- Development: 12.4%
- Transportation: 23.0%
- Home/Industry: 4.8%
- Agriculture & forestry, fishery: 2.5%
- Waste: 30%

30% reduction confirmed in contrast to the forecasted BAU emissions in 2020 (‘09.11.17)
Promotion on the Policy for the Greenhouse Gas Reduction

Management by Objective System
Implemented in 2012

Providing systems and the foundation for fulfilling greenhouse gas reduction
- Calculate the amount of the emission, set the goal
- Provide the foundation for the operation, evaluate the checking of the implementation

Cap-and-Trade on greenhouse gas according to the market rule
- Implement a pilot project for Cap-and-Trade System
- Provide incentives for the outstanding business

Law enactment for the greenhouse gas policy
- Implementing the fundamental law for green growth and the operation guidelines for greenhouse gas/energy (2011.3.16)
- Enacting the law such as submitting the bill on Cap-and-Trade system, etc.
  - the legislative bill on the carbon emission trading system (2011.4.15)
The Outline of Management by Objective (MBO) System

In 2020, implementing the management by objective system for the business with excessive greenhouse gas emission/energy as the key tool to realize the national greenhouse gas reduction.

- Through this, realizing the “Decoupling” of national economic growth and greenhouse gas/energy.

Supervise the business with excessive carbon emission, and set the maximum usage of energy for them. The government will be in charge of managing their performances by verifying their yearly specifications.

- These business (corporate body) on supervision will be chosen every year through the investigations that the amount of emissions and the average energy usage in last 3 years meet the standard amount.

### The Standard to be assigned

<table>
<thead>
<tr>
<th>Classified</th>
<th>Until '11.12.31</th>
<th>From '12.1.1</th>
<th>From '14.1.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>the amount of emissions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ton CO2e)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Standard</td>
<td>125,000</td>
<td>87,500</td>
<td>50,000</td>
</tr>
<tr>
<td>Workplace Standard</td>
<td>25,000</td>
<td>20,000</td>
<td>15,000</td>
</tr>
<tr>
<td>Fossil Fuel Consumption</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(tera joules)</td>
<td>500</td>
<td>350</td>
<td>200</td>
</tr>
<tr>
<td>Workplace Standard</td>
<td>100</td>
<td>90</td>
<td>80</td>
</tr>
<tr>
<td>Fossil Fuel Consumption*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(toe)</td>
<td>11,940</td>
<td>8,358</td>
<td>4,776</td>
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<tr>
<td>Workplace Standard</td>
<td>2,388</td>
<td>2,149</td>
<td>1,910</td>
</tr>
</tbody>
</table>

* 1 TJ = 23.88 TOE applied conversion
The Implementation of Management by Objective (MBO) System

Setting the goal for the management businesses by sectors concerned with the 4 pan-government departments’ collaboration
Implementing the tasks such as support and evaluation for the performance, and the administrative measure (Ministry of Environment in charge)

Select the management business by setting “the guidelines for greenhouse gas/energy target management operation,” regulate the management such as MRV (measure, report, verify) of emissions and energy, setting the goal, planning and performance evaluation (Notification by the Ministry of Environment, ’11.03.16)

The independent 3rd party verification

The assigned private verification facilities registered in 23 places (National Institute of Environmental Research), 2011 qualified examiners with completion of the regular curriculum turned out (National Institute of environmental Human Resources Development, ’12.01)

Penalty imposed when disobeyed

When one of these 3 - the specification, performance plan, performance report was not submitted or falsely reported, 3-10 million won of fine will be imposed
In 2011, 384 Business Units were assigned to manage their carbon emission goals (Goal for 2013 set in 2012)

- ‘11. 7. 29 (the assignment of management business was notified) /
  ‘11. 10. 7 (the assignment change of management business was notified)

<table>
<thead>
<tr>
<th>Types of Business</th>
<th>Petro-chemistry</th>
<th>paper/lumber</th>
<th>Electricity/Energy</th>
<th>Steel</th>
<th>Semiconductor/Display</th>
<th>Cars</th>
<th>ceramics</th>
<th>machines</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Business</td>
<td>80</td>
<td>53</td>
<td>39</td>
<td>35</td>
<td>35</td>
<td>20</td>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td>Types of Business</td>
<td>nonferrous metals</td>
<td>cement</td>
<td>fiber</td>
<td>Ship-building</td>
<td>oil refining</td>
<td>communication</td>
<td>mining</td>
<td>Total</td>
</tr>
<tr>
<td>No. of Business</td>
<td>22</td>
<td>23</td>
<td>14</td>
<td>8</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>384</td>
</tr>
</tbody>
</table>
Each Business Unit sets the goal and manages it by measuring, reporting, and verifying on the greenhouse gas emission and energy usage is available.

The specification on the greenhouse gas/energy, the implementation plan, and the performance report should be submitted to the government each year, and the reducing activity for the goal should be done earnestly.

**Specifications**
- Information on the management business and the workplace
- The condition of the emission facility and the amount of emission
- The unit requirement by products and the process
- The energy sales
- Emission reduction / absorption / removal and the result of usage
- The development of the specific torque coefficient (Tier3) in the workplace, etc.

**Plans for the Goal**
- The condition such as the amount of emission by workplace
- The measurement point by facility of emission and the way to monitor
- The development plan such as the specific torque coefficient
- The application plan of computation rating by emission activity
- Quality assurance and quality control
- Goals by workplace and by year
- The operation plan for the existing emission facility
- Plans for the establishment and extension
- Greenhouse gas reduction goal by facility
- Implement plan according to the order to improve

**Implementation Plan**
- The condition such as the amount of emission by workplace
- Goals by workplace and by year and the performance result
- The performance result and the basis such as the greenhouse gas reduction goal by facility, etc.
- The result of the quality assurance and quality control
- Implement plan according to the order to improve
The Basic Principles of Goal Setting for the Business Units

1. **Securing the credibility** of the majority of persons concerned by setting the goal that anyone can accommodate based on the **objective data**.

2. **Forming a consensus** through the clear operation such as providing information, gathering opinions, etc. to raise receptive capacity of the industrial goal.

3. Apply **the growth potential, the international competitiveness, the management condition, and the latent amount of reduction** of the individual business.

4. Setting the goal by the management business that the **Bottom-Up corresponds** with the **Top-Down**.
2012 Major Support Project for the Small-Medium Business Units

installing aid for outstanding reduction facility in small-medium business units

- Supporting through the public participation and evaluation for the business with the outstanding reduction effect for the process/equipment but lacking the investment economic feasibility
- 50~90% aid of installation cost on the KEMCO assigned reduction facility, measurement equipment (2012 budget for the support: around 3 billion won)
  *Planning to announce to the business with expired deadline for the energy diagnosis (the first quarter of the year)

One stop diagnosis in small-medium business units

- Providing the optimum reduction method and facility investment solution through the general support such as Diagnosis (Energy Efficiency), Safety Check (Gas & Electricity), Financial Planning (Investment Plan), etc.
  (2012 budget for the support: 1.5 billion won)
  *Planning to announce to the business with expired deadline for the energy diagnosis (the first quarter of the year)

Supporting the establishment of the inventory, specification, and the implementation plan

- Supporting in response to the system through the professional consulting businesses by types that are registered in KEMCO for mitigating the cost of small and medium sized businesses and for improving competence of the management by objective (supporting 50% of the cost)
  * the management by objective consulting business (registered in KEMCO): 47 companies
  * 2011 application level (maximum cost): specification (3.5 million won per business), implementation plan (4.5 ~ 10 million per business), inventory (16.5 ~ 19 million won)
Current Status and the Outlook for the World’s New/Renewable Energy Industry

Maintaining the high growth and establishing as the future growth engine industry in accordance with the Green Race

2004-2010 Annual Average Growth: 32%

Comparison of Market Sizes by Major Industry

[2004-2010 Annual Average Growth: 32%]

[Memory Semiconductor ('09) 425, Display ('09) 885, New Renewable ('10) 2,430, Aviation ('09) 4,450, Steel ('09) 5,000, Automobiles ('09) 11,600]
The legal definition of the new/renewable energy

11 energy sources are defined as the new/renewable energy such as the solar energy, wind power, etc.

① **Using the transformed existing fossil fuel or**
- New Energy (3) : (1) Fuel cell (2) Liquefying and vaporizing Coal and medium quality residue oil (3) Hydrogen energy

② **Energy used by transforming the renewable energy including the light/water/earth heat/precipitation/organisms**
- Renewable Energy (8) : (1) solar heat (2) solar ray (3) bio-energy (4) wind power (5) water power (6) ocean energy (7) waste energy (8) geothermal heat

rerelevant legislation: use/supply/promotion law developing the new and renewable energy (Article 2)
2010 New/Renewable Energy Supply: 2.61%
- The annual growth rate: 7.0% (’05~’10)

“New/Renewable Energy Usage Level will be increased to 11% by 2030”
The Size of the Domestic New/Renewable Energy Industry

Grown as the new type of business to be the source for growth of the small and medium sized businesses and the job creation

Drastic expansion of the governmental support

Participating in creation of small and medium sized businesses and Conglomerates

Forming the industrial ecosystem
* Establishing the new business group and value chain where large and small/medium sized businesses grow together

Manufacturing Co. (numbers)

<table>
<thead>
<tr>
<th>Year</th>
<th>'07</th>
<th>'09</th>
<th>'10</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>100</td>
<td>192</td>
<td>215</td>
</tr>
<tr>
<td>2009</td>
<td>192</td>
<td>3,691</td>
<td>10,407</td>
</tr>
<tr>
<td>2010</td>
<td>3,691</td>
<td>10,407</td>
<td>215</td>
</tr>
</tbody>
</table>

persons employed (numbers)

<table>
<thead>
<tr>
<th>Year</th>
<th>'07</th>
<th>'09</th>
<th>'10</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>1.3</td>
<td>3.6 times</td>
<td>13,380</td>
</tr>
<tr>
<td>2009</td>
<td>3.6</td>
<td>10,407</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>13,380</td>
<td>10,407</td>
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</tr>
</tbody>
</table>

production (trillion won)

<table>
<thead>
<tr>
<th>Year</th>
<th>'07</th>
<th>'09</th>
<th>'10</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>1.3</td>
<td>5.1</td>
<td>8.1</td>
</tr>
<tr>
<td>2009</td>
<td>5.1</td>
<td>8.1</td>
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<tr>
<td>2010</td>
<td>8.1</td>
<td>8.1</td>
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Export (100 million dollars)

<table>
<thead>
<tr>
<th>Year</th>
<th>'07</th>
<th>'09</th>
<th>'10</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>25.9</td>
<td>7.8 billion</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>7.8 billion</td>
<td>25.9</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>25.9</td>
<td>25.9</td>
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</table>

Enough potential to develop into the national growth engine industry although it still needs to grow to keep up with the world market.
New/Renewable Energy Policy: Vision

**Vision**
- Supply rate of new/renewable energy expanded to **11%**
- Leaping to one of the **5 new/renewable power nations**

**Future Projects**
1. the strategic R&D and Industrialization
2. Promotion of the Industrialization and market creation
3. Promotion of the industrialized export
4. Reinforcing the basis of the company growth

40 trillion KRW to be invested with the collaboration of the private (33) and the government (7) by 2015
Promotion of Strategic R&D and Business


- 1.5 trillion won on the core source technology, preoccupancy of the market until 2015, and 1 trillion won support for the small and medium sized business to become domestic and their technology development.
- 227.3 billion won support on the large-scale leading project, future source, strategy application, demonstration, short term core, etc. this year

2. Establishing the R&D for Pan-departmental New/Renewable Energy

- Removal of R&D overlapping in new/renewable energy, and establishment and operation of the pan-departmental new/renewable energy R&D conference for the collaborated business for the synergy effect

3. Establishing the Test-bed for the New/Renewable Energy

- Supporting the small and medium sized businesses going through hardships in commercializing without securing the components and materials Test-Bed used for mass production of new renewable energy, and preventing the overlapping investments and cut-throat competition among similar businesses of local governments
- Establishing the Test-bed through the competition among members by selecting the optimized area and supporting the establishment of the test-analysis, efficiency test, and demonstrated reliability-tested equipment (Select 6 Test-bed by June, 2011, keep supporting until 2013)
  * Solar ray (3): Chungcheong, Daekyung, Honam area/ Wind power (2): Honam, Dongnam area/ fuel cell (1): Daekyung area
- Networking the domestic academic experts and related institutions by members and induce the integration of the research facilities and related businesses to promote intra-industry trade
Creation of the New/Renewable Energy Industry

1. Promotion of the 10 Green Projects

- Select and support the 10 targets with the new/renewable energy and publicizing effect, and create the propagating market and promote industry with the related fields
  * Post, Port, School, Island, Logistics, Industrial Complex, Highway, Army, Factory, Power

- 3 fields (Green I.C(Industrial Complex), Green Port, Green Logistics) promote the large-scaled projects of public sector, and establish the propagating roadmap in 7 sectors among the ministry and office concerned reflecting the characteristics by sectors

2. Developing the offshore wind energy resources complex in the southwest coast

- Establish the 100MW(SMW 20 machines) level demonstration complex in Southwest coast (Buan-Youngkwang) until 2014, and expand to 2.5GW until 2019

- Developing started in full-scale by selecting the wind power supporting harbor (July)

3. Introduce the compulsory system to use the new renewable energy by sector

- **Power generation**
  - RPS: provide the part of the energy(2~10%) with the new renewable energy and make it compulsory for the power generation business (13 units) (being implemented since 2012)

- **Heat**
  - RHO: substitute part of the heat usage in private buildings of certain size with the new renewable heat (reviewing to implement after 2015)

- **Transportation**
  - RFS: substitute part of the fuel for transportation with the bio-energy and make it compulsory (reviewing to implement by 2014)
Promotion of the Export Industrialization

1. Supporting the new renewable energy industry to extend abroad

- Starting to promote and foster the new renewable energy industry to focus on the export (2012: 9.1 billion won)
  * building the groundwork for expanding abroad (6.1 billion won), supporting overseas F/S (3 billion won)
  * building the groundwork for expanding abroad: overseas market investigation and finding project, supporting overseas marketing such as participation in overseas exhibitions, etc., supporting overseas training of experts, holding international exhibitions, operating export support center, supporting to obtain overseas certification

2. Holding the 3rd New renewable energy state ceremony

- Holding the specialized international exhibition (the 3rd), publicizing the new renewable energy and supporting promotion of export (date and time, place: Oct. 9 ~ 12, COEX)

- Promote various continual functions: Seminar, export consultation, rewarding, etc.

3. Promotion of International collaboration of New renewable energy

- Strengthening the technology and industry collaboration basis through the international organization activities and the leadership in the international society
  - Institutionalizing and continual participation in IRENA (International Renewable Energy Agency)
  - Expanding the activities within the IEA REWP

- Strategic collaboration with the leading countries and laying the groundwork for export industrialization through strengthening the collaboration among private and governmental institutions
  - Joint seminar or R&D with Germany, Spain, Denmark, Malaysia, UAE, etc.
Reinforcing the Foundation for the Company Growth

1. Creation and Management of the Win-win Guaranteed Fund

- Manage the guaranteed fund for the smooth flow of the financial loan for the new renewable energy companies that are fast-growing
  - Size of the guaranteed fund: 103 billion won (Growing and Large scale companies, 63 billion won, finance company, 40 billion won)
  - Size of the guarantee support: 1 trillion 236 billion won (12 times the contribution amount)
  - Target for the guarantee support: new renewable energy field manufacturing company or the development business

2. Reinforcing the verification System for the New Renewable Energy Equipment

- Switching from the “Unified Technology Standard Verification System” protecting the domestic market to the “Multi-technology Standard Verification System” for the support of overseas expansion, and promoting the mutual international recognition

3. Fostering the Social Business for the New Renewable Energy

- Secure the foundation for the social business of new renewable energy
  - Give preference to support the technical support and the supply business of the new renewable energy when the business is hiring the vulnerable social group such as the disabled, low income earner, senior citizens
  - Promotion of fostering the social companies through supporting the establishment of the follow-up management service companies in new renewable energy field
Anywind by Pishon Energy
Pishon Energy is A World-class Wind Turbine Total Solution Provider with Salient Blade, Coupling Generator and Inverter Technology.

- Field Proven Wind Turbine Technology
  - High density and efficiency wind power system by modular multi-layer stacking
- Performing National Energy Projects supported by Korean Government
  - Best combination of the world leading salient 3 wind turbine technologies.
- Positioning as a top player for large size RPS market in Korea
  - Co-working with 5 biggest power suppliers (64% of total energy) in Korea.
- Coupling Generator is an innovative invention in Electric Machine to change the world
**ANYWIND: Combination of World 3 Leading Technologies**

1. Direct Driven System without Gearbox
2. Increase Efficiency Using Modular Implementation
3. Easy Installation and Maintenance
4. Conceptual Design of the Large Wind Farm
5. Increase Efficiency and Low Noise
6. Use the Lightest Blade Material
7. Cogging-free & Counter emf-free Dual Rotor Radial Flux Permanent Magnetic Generator
8. Increase Performance very Highly by Reducing the Electromotive Force
9. Very high rpm to reduce the Generator Size
10. Low Noise, No-Friction and Increased Life Cycle

emf: electromotive force
Strengths of Anywind

1. Low wind Speed to generate power (more operation rate)
   - 2.2m/s to spin, 3-4m/s to generate electric power
     Current wind power / huge propeller type needs 6m/s to spin and 10m/s to generate

2. Un-directional or multi-directional wind (Anywind is a trademark of Pishon Energy)
   - Salient blades, with any wind direction, spin turbine in one direction and generate power
     without loss of power efficiency

3. Generate 200% of power with the same wind speed (rpm), when compared to the current wind power generator

4. Low noise (with Magnetic Levitation)
   - 33dB, 10m from the wind power
     (Current wind Power Noise: 60dB – can distort eco-system)
   - low friction (low wind speed to generate)

The rotating part is levitated from the fixed part by the repulsive force of the magnetrons. ⇒ No Friction
Strengths of Anywind

5. Moduler wind power units
   - can produce various types of wind power generating units:
     1kw/h, 3kw/h (households or street lamp), 5kw/h, 10kw/h
   - can provide any size of power plants
     200kw – 10Mw: (for villages, islands),
     10Mw or bigger: (for large industrial complex or national power company)

6. Easy maintenance & Low maintenance cost
   - Because of module type power plant, only the broken parts of the unit may be fixed without stopping the other units

7. Lower power generation cost
   - Equipment Cost: 2.0M USD per 1Mw (Current wind power model: 2.5M USD)
     + 0.5M USD Installation cost
   - It generates 200% of power with the same wind speed
   - It can generate power with only 3-4m/s (Current wind power model: 10m/s).
Comparison of Wind Energy Generation

Power = \( \frac{1}{2} \times (\text{Air Density}) \times (\text{Power Coefficient } C_p) \times (\text{Sweep Area}) \times (\text{Wind Speed})^3 \)

<table>
<thead>
<tr>
<th>Major Wind Turbine</th>
<th>Propeller Type</th>
<th>\textit{ANYWIND}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Latitude above 50°</td>
<td>Latitude below 40°</td>
</tr>
<tr>
<td>Average Wind Speed</td>
<td>Strong (Above 6m/s)</td>
<td>Weak (Below 5m/s)</td>
</tr>
<tr>
<td>Direction</td>
<td>Directional</td>
<td>Un-directional</td>
</tr>
<tr>
<td>Characteristics</td>
<td>Good Quality Wind</td>
<td>Weak Wind Speed &amp; Multi-directional</td>
</tr>
</tbody>
</table>

- Propeller Type must set blade at perpendicular w.r.t. wind direction
- \textit{ANYWIND} always generates power regardless of wind direction
Thank you for sharing your time with us.

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Mobile: +82-10-5254-3092