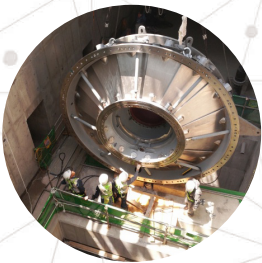




www.pecorp.org

Solution Provider for Power & Green Energy



Asian Power & Energy Corp.
Republic of Korea



Japan Cyber joint office licensed by KOEMA



Introduction of APEC

Environment Management

Through the environmental friendly business activities, our company makes an effort to preserve the environment.

Customer Management

Our Company maximizes customer's satisfaction with the best performances and services. Moreover, our primary corporate policy is to increase the value for the customer.



Righteousness Management

Based on honest and fair work accomplishment, our company endeavors to become an ethical company that can be trusted.

QA/QC Management

Through efficient quality assurance and control system, our company tries to achieve the trust and satisfaction of the customer.

Business Strategy



Professionality

APEC is committed to customer's satisfaction by providing best professional technology and service. APEC is specialized in hydroelectric power generation, renewable energy and electricity transmission and distribution system.

Opportunity

APEC is constantly investing in R&D to have opportunities that will come true in the future. We are constantly to be value added while carrying out governmental tasks.

World-Class

APEC has leading-edge competitiveness in the field of hydroelectric power generation, renewable energy and electricity transmission and distribution system through APEC's core competencies.

Eco-Friendly

APEC is a professional company for environment-friendly performance and we think of the environment as the first priority when the resources is putted in and exhausted.

Responsibility

APEC aims at an honest fair accomplishment and endeavors to do ethical business with reliable partners. We intend to do our utmost effort to fulfill its social responsibilities.



CEO's Greeting

It is great pleasure to introduce ourselves to you.

This is Simon N. Paik, CEO and president of APEC (Asian Power & Energy Corp.).

All of employees and myself always hope to have the valuable communications and share business strategy of our company with our customers in order to meet customer's needs. Therefore, It would be much appreciated if this brochure could be the helpful and beneficial to understand our expertise and strength.

APEC is specialized in Hydro Electric Power Generation, renewable energy development, and electricity transmission and distribution system. Furthermore, we are solution provider to accomplish green growth and next-generation's power network like Smart Grid through small hydro power, photovoltaic, wind power, and biomass generation in order to preserve our environment.

APEC is a professional company for environment-friendly performance and we think of the environment as the first priority when the resources is putted in and allocated in carrying out our tasks.

The company continuously responds to challenges in the global competitiveness and achieve the trust of the customer through the successful performance of the various project all over the world.

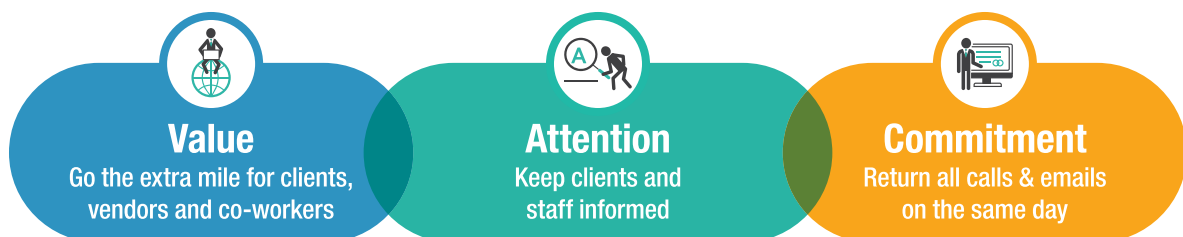
APEC intends to be an enterprise that fulfills its social role and responsibilities and receives love, trust and respect. I intend to secure the real competitiveness based on the reliability by the customers and the society through clean and transparent righteous management and to grow up to be an enterprise equipped with love and glory.

Sincerely Yours,

Asian Power & Energy Corp. (APEC)
CEO and President, Simon N. Paik

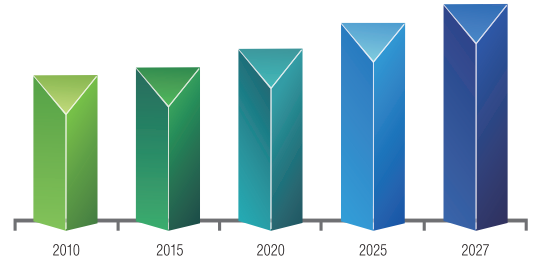


Core Values



Business Domain



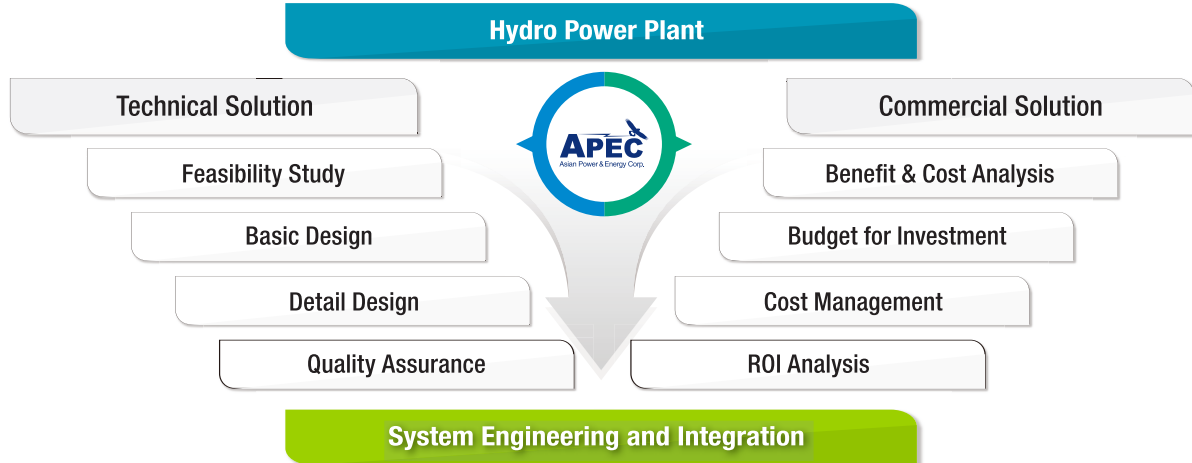


Hydro Power Plant

Scheme for Hydro Power Plant in Domestic

Kaplan Type	Francis Type	Pelton Type	Cross Flow Type
 <ul style="list-style-type: none"> - Reaction turbine - These types of turbines are usually used in plants using low water heads, frequently between 3 and 50m. Kaplan turbines, with horizontal, vertical and also slanting centre lines, may be produced with various configurations, depending on the plant specifications. 	 <ul style="list-style-type: none"> - Reaction turbine - These types of turbines are suitable for a wide range of water heads, normally from 10 to over 300 meters. This type of machine can also be used where the water head varies, even with percentages exceeding 50%, of nominal, for lake level fluctuation or in an aqueduct due to the effect of the growing head losses. 	 <ul style="list-style-type: none"> - Impulse turbine - These turbines are particularly suitable for exploiting plant conditions where there is a low flow utilization as compared with the water head. Situations where reaction turbines would have excessive speed and would encounter particularly serious problems such as cavitations. 	 <ul style="list-style-type: none"> - Impulse turbine - These turbines can be manufactured with a vertical or horizontal inlet. However, the shaft is always horizontal. A wide rectangular water jet is used. The water enters the runner radially, it then passes through the runner and strikes the blades again on exit (hence, the term "Cross Flow").

Hydro Turbine is the most important equipment of (Small) Hydro Power Plant which high efficiency for 40-50 years at least. The best solution for each application is being designed and provided by Asian Power & Energy Corp. (APEC)



Fresh & Sea-water Generator

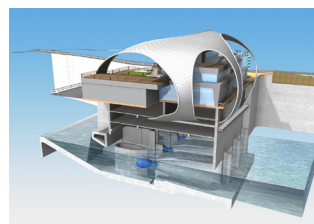
Application	Project	Head (m)	Discharge (m ³ /s)	Turbine Type	Runner Diameter (mm)	Output (kW)	MWh per annum
Fresh-water	Hapcheon	5.11	123 (61.5x2)	Kaplan Pit	3,400	5,000 (2,500x2)	25,357
	Yipo	2.28	168 (56.0x3)	Kaplan Pit	3,400	3,000 (1,000x3)	17,838
	Seomjin	47.48	4.55	Crossflow	950	1,650	15,768
Sea-water	Dangjin	4.38	56.00	Kaplan Bulb	3,150	3,183	17,040
	Bukpyeung	6.5	36.6 (Cascade)	Kaplan Pit	2,600	4,416 (2,208x2)	28,373
	Taeon	6.56	86.34 (43.17x2)	Kaplan Pit	3,200	5,260 (2,630x2)	40,942



Bukpyeung SHPP



Taeon SHPP



Yipo SHPP



Sihwa TPP

Solar Power

Photovoltaic Power Plant



Fixed Type

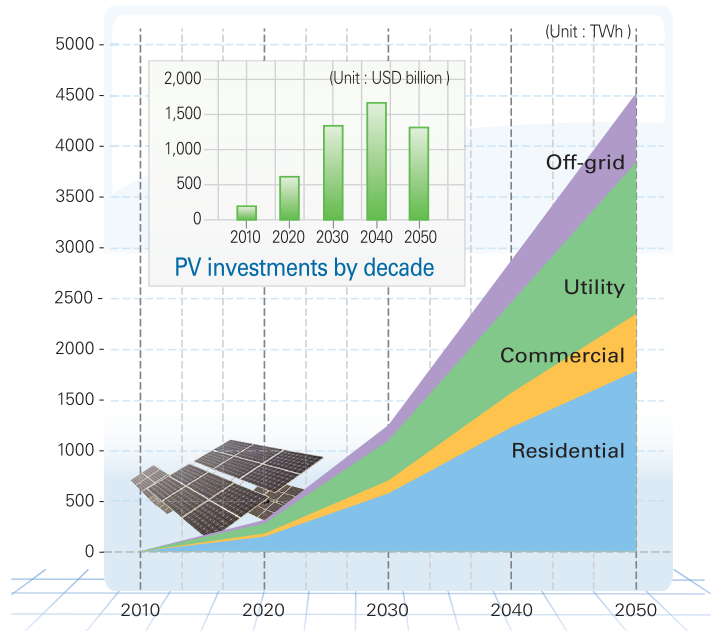


Tracking Type



Multi Axis Control

Annual PV Power Generation by End-use Sector



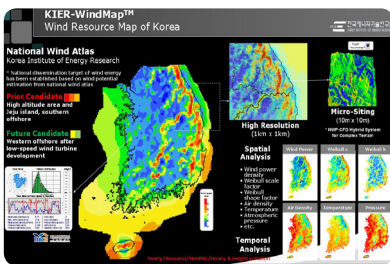
Wind Farm



Wind Farm



On Shore Wind Farm

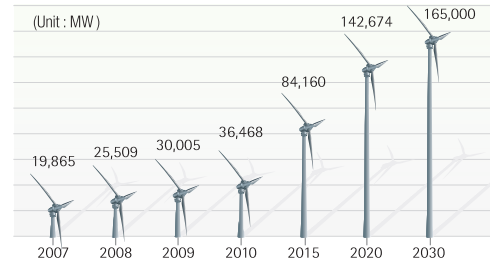


Wind Resource Map of Korea

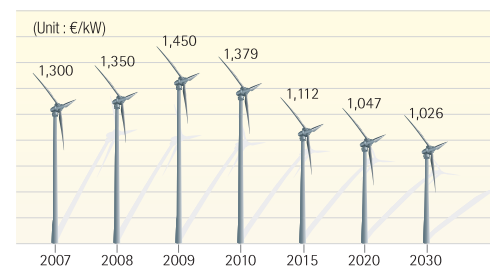


Off Shore Wind Farm

Output Prospect of Wind Power in World Market

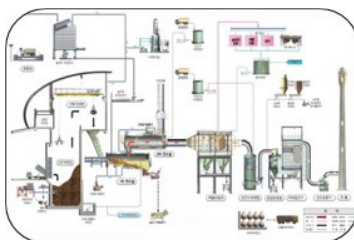


Cost Prospect for Wind Power Generation

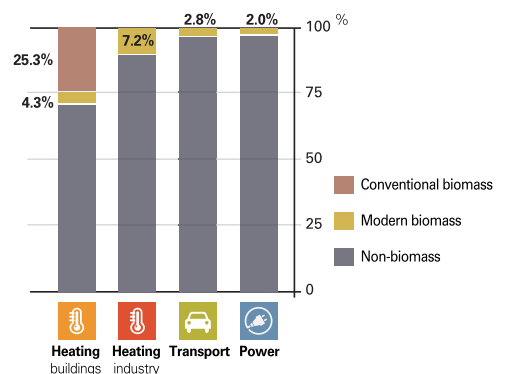


Biomass Plant

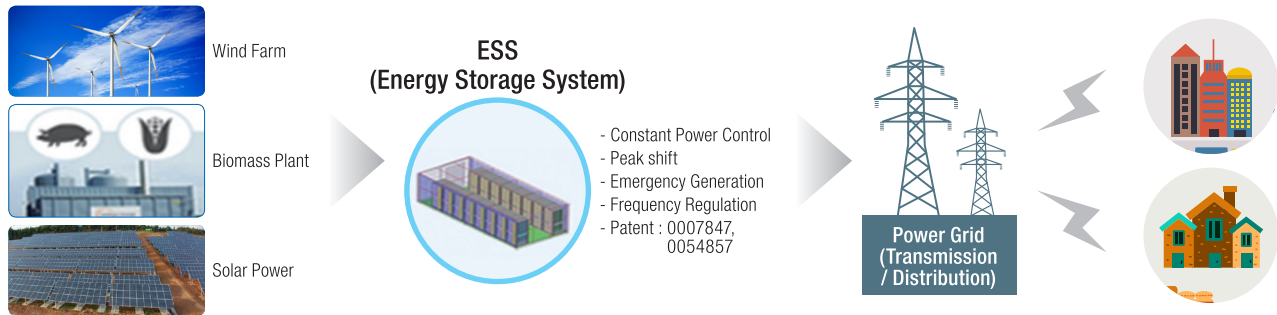
Biomass is fuel that is produced from organic materials and a renewable and sustainable source of energy used to create electricity or other forms of power.



Biomass Power Generation by End-use Sector

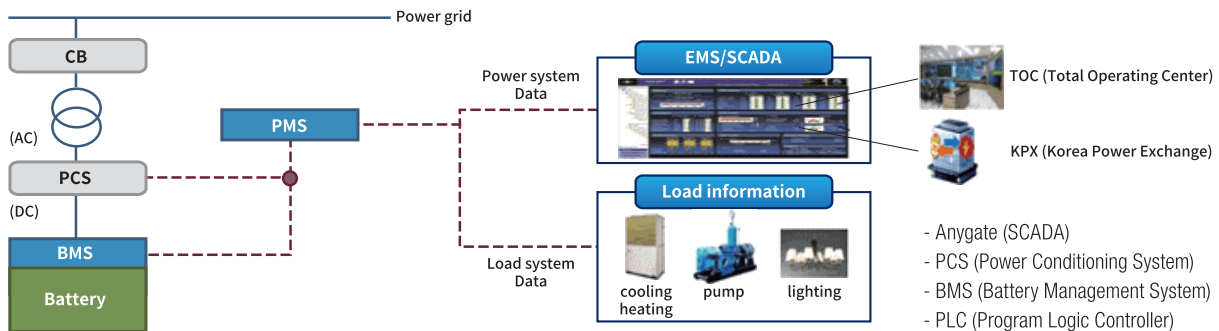


ESS (Energy Storage System)



PMS(Power Management System)

Remote control for rated output of seawater hydro power system



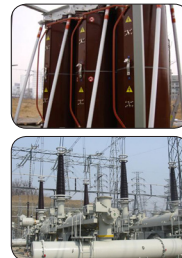
Electrical & Power Solution

Power Transmission & Distribution



Switchgears

- High Voltage Switchgear
- Low Voltage Switchgear
- Package Switchgear-IT Distributing Board
- Motor Control Center
- Protective Relay & Control Panel
- Panel Board
- Bus Duct
- Medium Voltage Metalclad Switchgear
- Cubicle



Transformers

- Cast Resin Type Transformer
- Oil Type Transformer

Ultra High Voltage

- Gas Insulated Switchgear

Power Quality Solution



FACTS

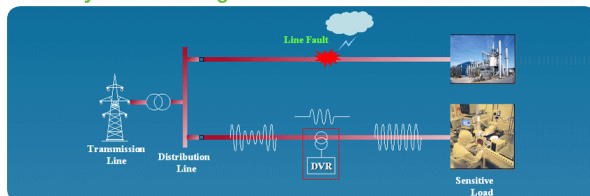
- HVDC (High Voltage Direct Current)
- SVC (Static Var Compensator)
- TCSC (Thyristor Controlled Series Compensator)
- STATCOM (Static Compensator)
- SSSC (Static Synchronous Series Compensator)
- UPFC (Unified Power Flow Controller)



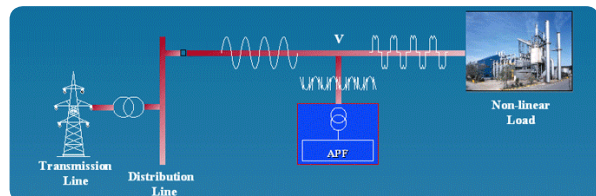
Custom Power Devices

- SSTS (Solid State Transfer Switch)
- DSTATCOM (Distribution Static Compensator)
- APF (Active Power Filter)
- UPS (Uninterruptible Power Supply)
- DVR (Dynamic Voltage Restorer)
- UPQC (Unified Power Quality Conditioner)

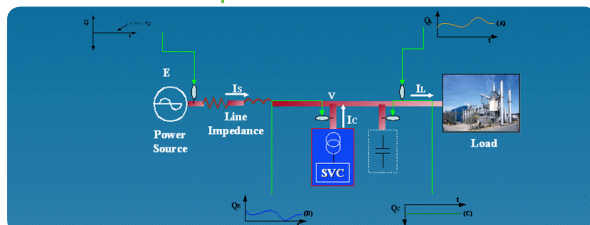
DVR | Dynamic Voltage Restorer



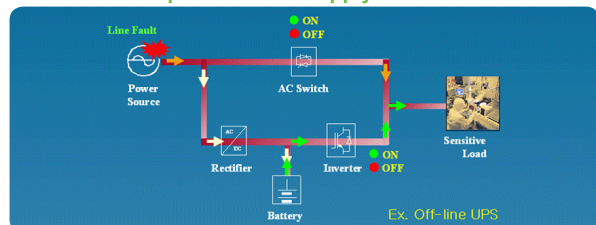
APF | Active Power Filter



SVC | Static Var Compensator



UPS | Uninterruptible Power Supply



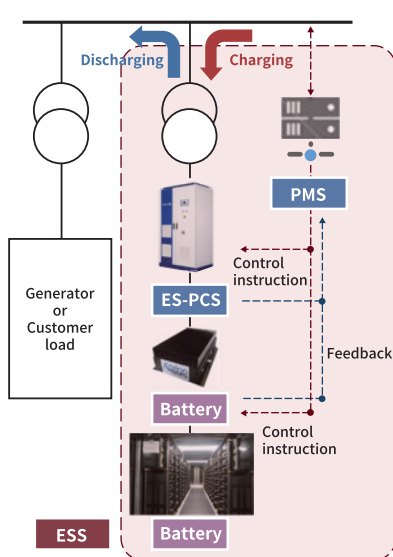
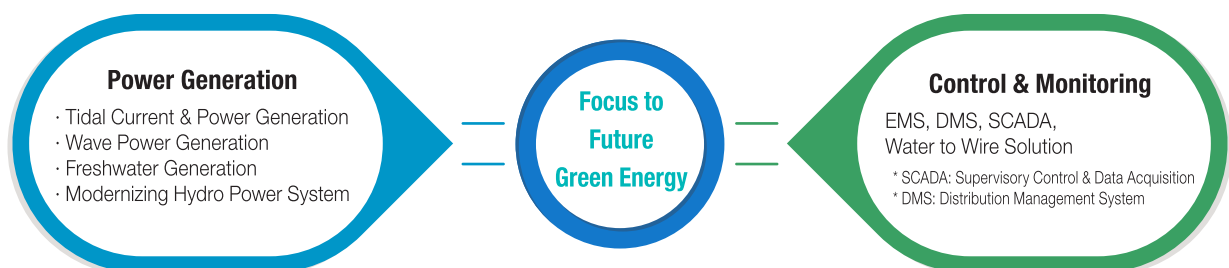
Electrical & Mechanical Works

Responsible construction for electrical and mechanical works through global Quality Management System (QMS)



Energy R&D Center

R&D Center was established in January 2010 as an affiliate research institute of APEC. Energy R&D Center for New & Renewable Energy is specialized in energy technology research and development for improving the efficiency of hydro power generation technology and renewable energy. We are leading in realizing "Green Energy" through the development of micro pump type water turbine, development of ESS (Energy Storage System) and PMS (Power Management System) linked to solar power generation, wind power generation and so on.



ESS system



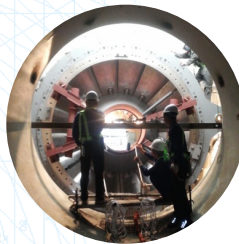


The Excellent Company
Brand of Seoul

www.apecorp.org

Solution Provider for Power & Green Energy

Asian Power & Energy Corp. (APEC) respects the thoughts of the customers as the first priority and creates new values.



Asian Power & Energy Corp.
Republic of Korea

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