

A way to cooperate with Korean Wind Industry practically

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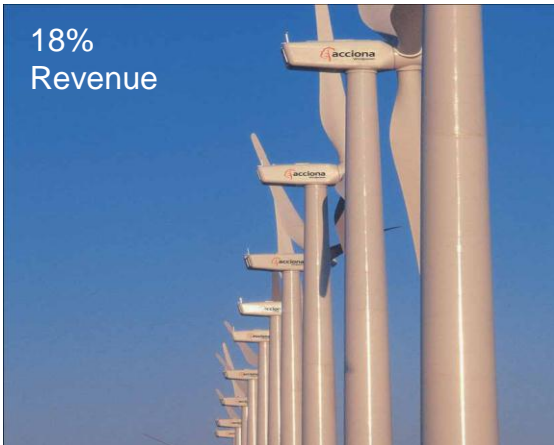


Acciona Group

- **One of the major Spanish enterprises**
 - Operating in about 30 countries
 - Annual revenue : EURO 6.5 Billion (2009)
 - Employees : over 33,000 (2009)
- **Three principal areas of 2010-2013 Strategic Plan ;**
 - Renewable Energy : Wind, Solar, Photovoltaic, Biomass, Bio-ethanol, Mini-hydro, etc.
 - Water : Desalination, Water treatment, Potable water supply
 - Infrastructure : Transport, Waterworks, Social & Industrial Installation

Renewable Energy

18%
Revenue



Water

8% Revenue



Infrastructure

53%
Revenue






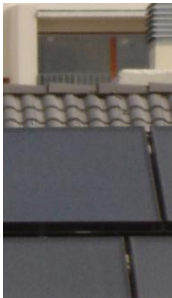




Acciona Energy






- **World leader in renewable energies**
 - The only company worldwide with significant activities in all renewable technology
- **Annual revenue : EURO 1.2 Billion (2009) - Employees : over 2,100 (2009)**
- **Main activities**
 - **June 2009, ACCIONA completed construction of wind farm in YeongYang, South Korea, with 61.5 MW, which has been registered with UN as a CDM project.**
 - **March 2009, ACCIONA opened a biodiesel plant in Spain with an annual capacity of 200,000 metric tons. The fuel produced will fulfill 27% of Spain 2009 target**
 - **October 2009, ACCIONA signed a contract with the US army to install a 500 MW solar power facility at USA.**
 - **November 2009, ACCIONA completed construction in Mexico of Latin America's largest wind farm with 250.5 MW**

Acciona Energy: Strong Presence in 8 Clean Technologies...

Horizontal integration (Technology sectors)

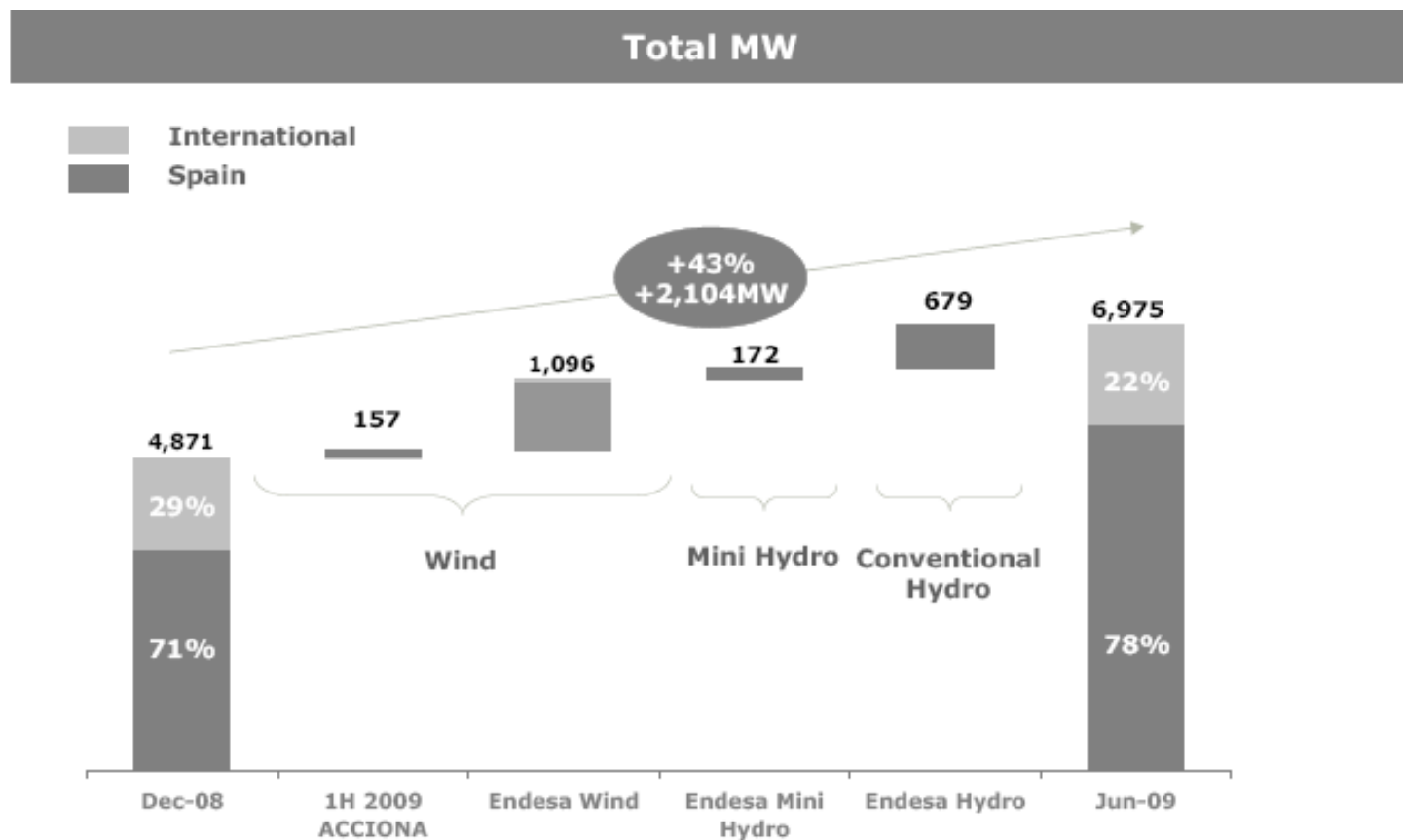
ELECTRICITY					HEAT	BIOFUELS		
								
Wind	Small Hydro	Biomass and cogeneration	Photovoltaic Solar	Thermal solar	Solar térmica	Biodiesel	Bioethanol	
5.814 MW	961 MW	133 MW	48 MW	64 MW	1 MW	270.000 t.	26.000 t.	Ownership
7,285 MW	961 MW	133 MW	115 MW	65 MW	15 MW	270.000 t.	26.000 t.	Total
1.471 MW			67 MW	1 MW	14 MW			Third Parties

...And Wind Turbine Manufacturing

WIND TURBINES				COMPONENTS
				
Barasoain (Spain)	Vall D'Uixó (Spain)	Nantong (China)	West Branch (USA)	Toledo (Spain)
Cap: 675 MW	Cap: 675 MW	Cap: 600 MW	Cap: 675 MW	Cap: 184 hubs

Wind: four wind turbine assembly plants and one for hubs

Capacity Installation (June 2009)



June 2009, ACCIONA successfully completed construction of 61.5 MW wind farm in YeongYang, South Korea, which cost 100 million Euros to build.

(주)영양풍력발전공사 in Korean



Eco-friendly development of YeongYang Wind Farm



YeongYang Wind Farm constructed on farmland



Location

- ACCIONA- 1st landmark project in Korea (2009)
- Location - YeongYang & YeongDuk Counties in the eastern part of Korea.



Project Overview

- **ACCIONA 1st wind farm in Korea**
- **The 2nd largest generation capacity (with grid connection) in Korea**

- **Developer** : ACCIONA Energy Korea
- **SPC** : YYWPC
- **Constructor** : DongKuk S&C / Hyosung
- **Capacity** : 61.5MW, (1.5MW x 41 turbines)
- **Wind Turbine** : AW-77 GLII
- **Tower** : DongKuk S&C
- **Transmission Line** : 154KV
- **Cost** : 100 million EUROS
- **Period** : About 4 years

Forest Recovery work-YeongYang Wind Farm



After Forest Recovery Work

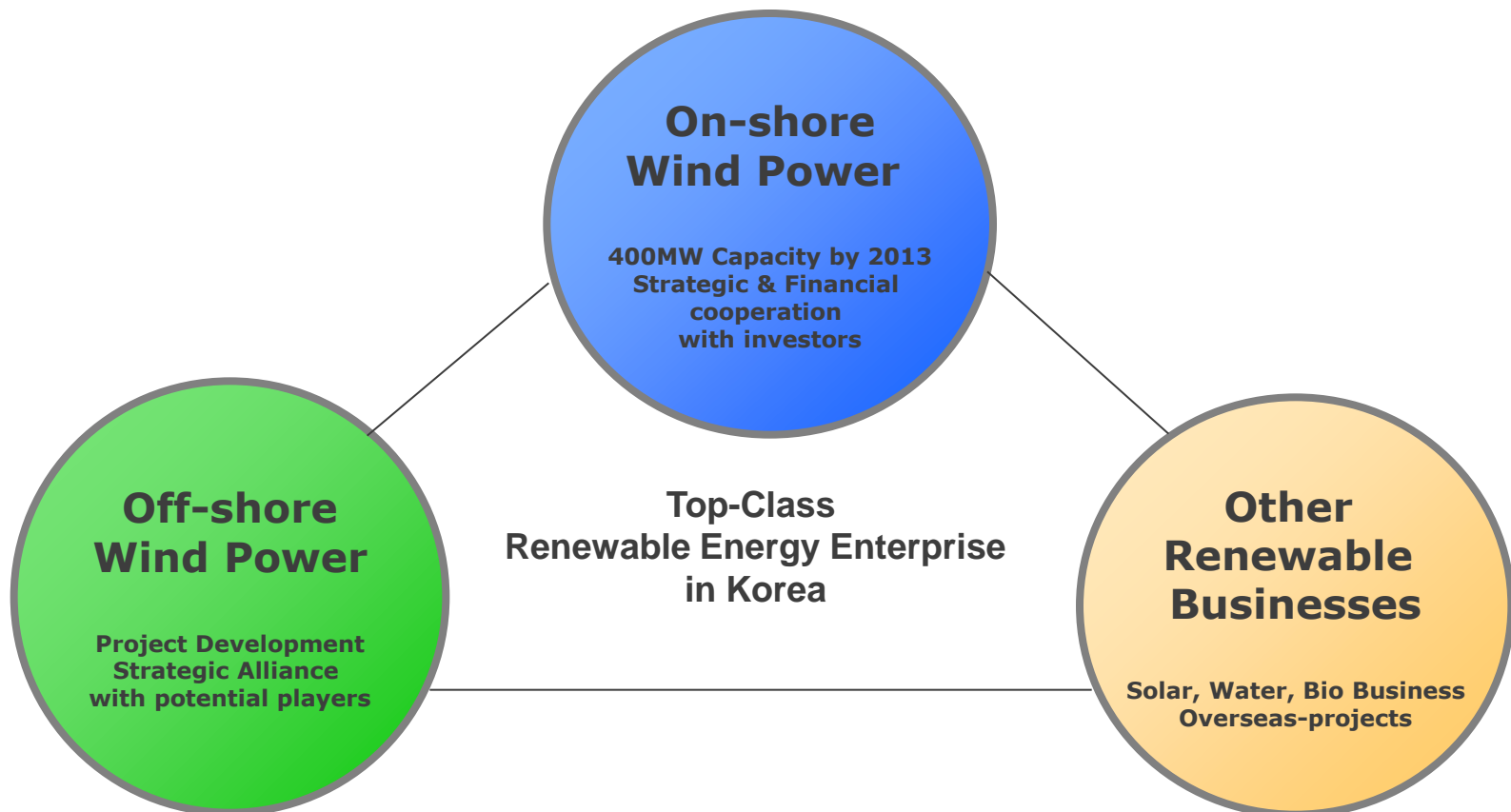


II. ACCIONA in Korea



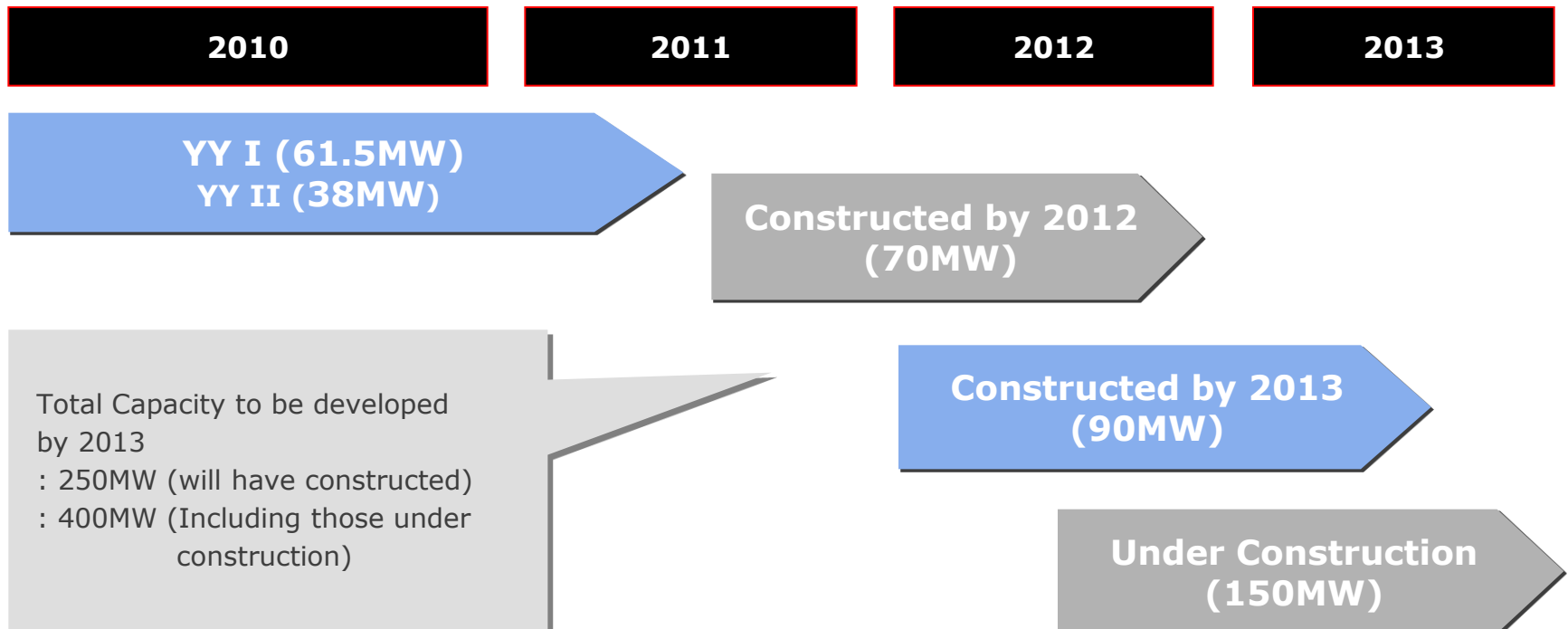
Top-Class Renewable Energy Enterprise in Korea

- With sustainable business spheres on on-shore, will proceed to off-shore, and other promising renewable business areas.



Future Wind Projects : overview

- Basic surveys have been performed for new projects with more than 700MW potential capacity , more than 30 prospecting sites
- Capacity expected to rise up to 250MW (400MW including those under construction) by 2013 that will cost approximately KRW 1 trillion (USD 800 million)



How to operate WIND FARM ?

ACCIONA have provided Operation & Maintenance Technology

- Curriculum for 3 weeks
- General study for wind power
- General training, Safety & Equipments Training, On-the-spot Study, Evaluation, etc.

2 times every year - About 150 trainee

- **1st Training course
(Oct. 2008)**

- Venue: Andong GeonDong Univ.
- 34 persons

- **2nd Training course
(May 2009)**

- Venue: YeongYang - 47 persons

- **3rd Training course
(Nov. 2009)**

- Venue: YeongDuk, - 35 persons

- **4th Training course: PENDING**



How to operate WIND FARM?



2009년도 상반기 <Acciona Energy 풍력발전일반 기술교육> 참가자 모집

1. 사업개요

신재생에너지 선두기업인 스페인 소재 악시오나 에너지(Acciona Energy)는 경상북도, 영양군, 영덕군의 협조 하에 풍력발전사업을 전개 중입니다. 이에 국내 풍력 발전사업 차변 확대의 일환으로서 자사가 보유하고 있는 풍력발전 기술이전 계획에 의한 제2차 교육용 실시하고, 교육 후 소정의 실사를 거쳐 우수인력은 발전단지 운영유지직원으로 채용하고자 하오니 관심있는 분들의 많은 지원 바랍니다.

2. 교육내용

- 교육기간 : 2009. 05. 11(월) ~ 05. 29(금) 115일간
- 교육장소 : 영양군종합복지회관 (경북 영양군 영양읍 통부리 174-21번지)
- 교육입장 및 내용
 - 1주차(5일) : 풍력발전기 일반교육, 안전교육
 - 2주차(5일) : 전기 전자장비 일반교육 - 3주차(5일) : 전기 장비, 유지관리
- 교육인원 : 30명 내외 ■ 교 육 전 : Acciona Energy 본사, 국내 교육원
- 교육언어 : 영어-한국어 동시통역, 한국어

3. 신청자격

- 학 력 : 고졸이상 ■ 거주지역 : 경상북도(신청일 전 주민등록지 기준)
- 유대조건 : 전기-기계전공자 및 관련자격 소지자, 영어가능자

4. 신청서 교부 및 접수

- 신청서 교부(온라인 다운로드)
- 경상북도 홈페이지(<http://www.gyeongbuk.go.kr>)
- 영양군 홈페이지(<http://www.yya.go.kr>)
- 영덕군 홈페이지(<http://www.yd.go.kr>)
- 접수방법 : 이메일 접수(jungw.yoon@acciona.com)
- 접수시 지원서 파일명을 "지역, 전공명, 성명"으로 기재할 것
예시) "영양, 기계, 홍길동" 또는 "영덕, 전기, 김XX" 등
- 접수기간 : 2009년 5월 5일까지
- 선정결과통보 : 5월 7일 이전 홈페이지 공고 또는 개인통지

5. 기타 및 특이사항

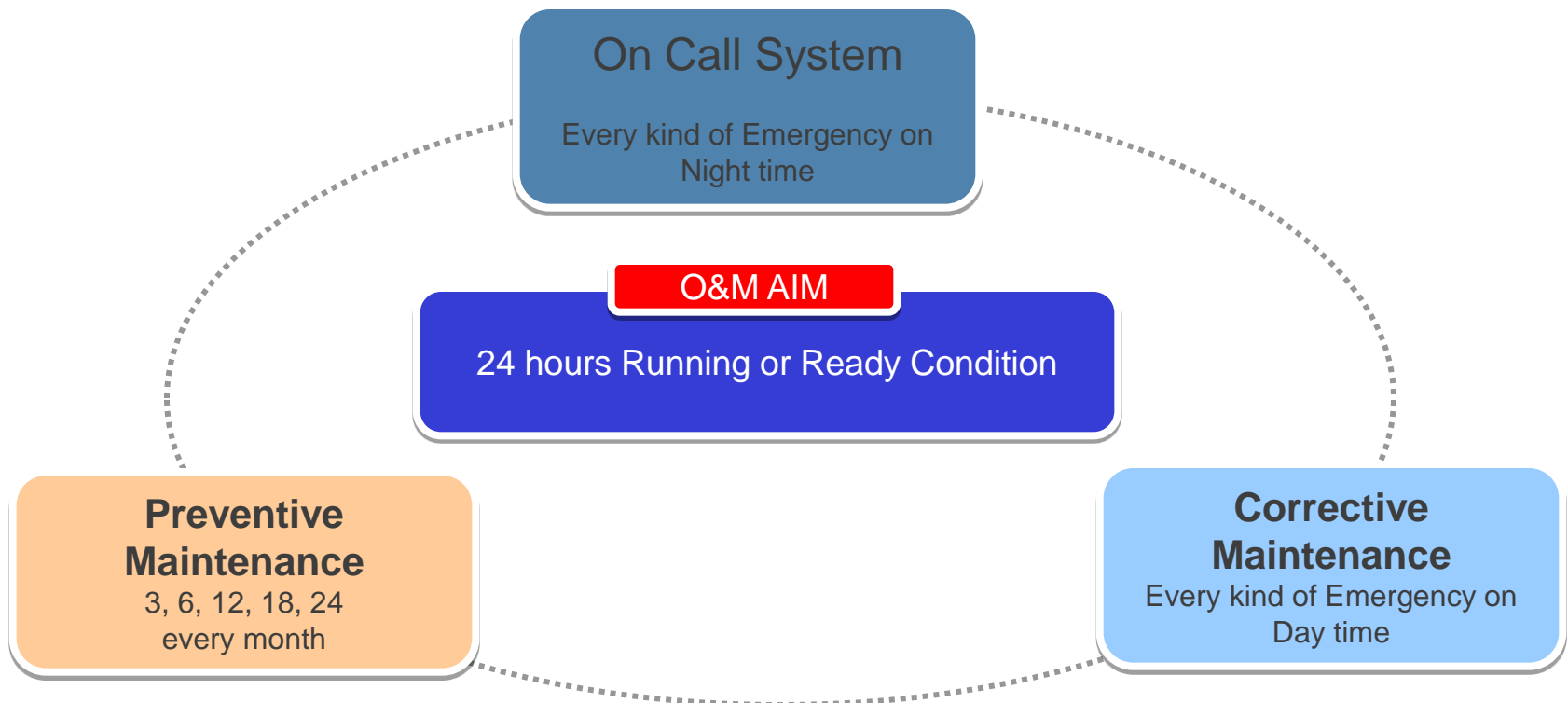
- 교육생 특전
 - 교육비(교재 포함) 무료, 중식제공
 - 소정심사에 따른 교육무수차 제공
- 교육이수 후 수료증(Acciona Energy Diploma)
- 참가자부담 : 교육기간중 숙박비, 중식음 제공(한 식비)
- 기타 문의사항은 02550-6435, (jungw.yoon@acciona.com)

후원:  경상북도  영양군  영덕군 주관/주최:  acciona Energia

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ACCIONA-24 Hours Maintenance System

- Adopts 24 hours Maintenance through On Call System for night time emergency along with Preventive and Corrective Maintenance Activities on day time



Sisterhood relationship with community



Volunteer Service in farmland



How to contact – ACCIONA Energy Korea

<http://acciona.com> for more information

ACCIONA Energy Korea Ltd.

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