

RWE Innogy – Not yet a year old but running fast and safe

16th January 2009

Prof. Dr. Fritz Vahrenholt, CEO RWE Innogy

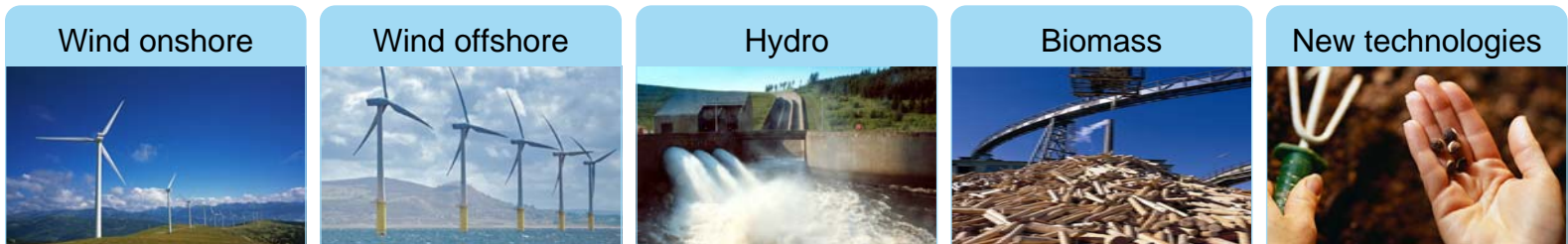


RWE Innogy – a snapshot

Overview

- > RWE Innogy is bundling renewables activities and competencies across RWE Group
 - Focus on profitable capacity growth in commercially mature renewable technologies
 - Research & Development and ventures to drive the development of emerging technologies
- > EU focus, international activities opportunistically
- > Asset portfolio of 1.3 GW capacity in operation and 0.5 GW under construction (as of January 2009)
- > Project pipeline of 11.9 GW capacity

Business Area



Focus and Strategy

<p>Key technology for capacity growth</p> <p>Focus markets include UK, Spain, Germany, France, Italy, Central-Eastern Europe</p>	<p>Key technology for capacity growth</p> <p>Focus markets include UK, Germany, Netherlands</p>	<p>Run-of-river projects</p> <p>Development of hydro power projects</p> <p>Focus areas are Central- and South-Eastern Europe</p>	<p>Development of biomass plants (> 5 MW)</p> <p>Regional focus on RWE core markets and South-Eastern Europe</p>	<p>Ventures and R&D</p> <p>Emerging technologies</p> <p>Carbon neutral generation</p> <p>Efficient energy storage</p>
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RWE Innogy management team: experienced – well connected – international

Prof. Dr. Fritz Vahrenholt
CEO



- > Hydro
- > Biomass
- > Ventures
- > HR
- > Communication

Dr. Hans Bünting
CFO



- > Finance
- > Legal
- > Tax
- > M&A
- > IT

Kevin McCullough
COO



- > Wind onshore
- > Wind offshore
- > Technology & procurement

Education

- > Degree in chemistry
- > Doctorate in chemistry (both University of Münster)

- > Degree in business administration
- > Doctorate in business administration (both University of Bochum)

- > Degree in mechanical and electrical engineering

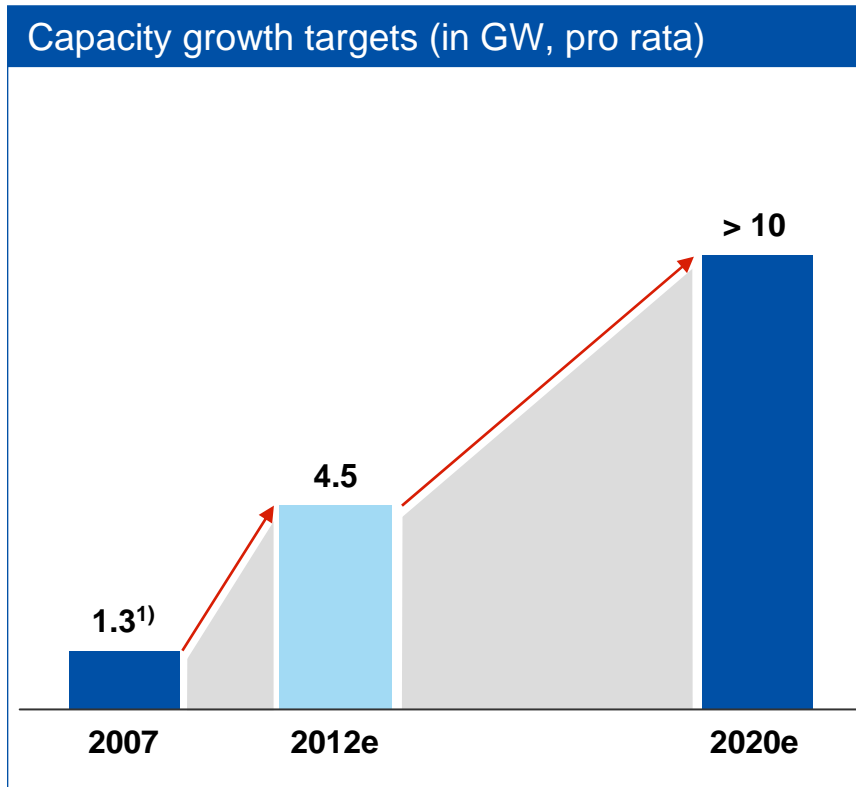
Career Milestones

- > **2001 – 08** CEO REpower Systems AG, Hamburg
- > **1998 – 01** Member of the Board of Directors of Deutsche Shell AG
- > **1991 – 97** Senator and Principal of the City of Hamburg Environmental Ministry
- > **1984 – 90** Deputy Minister City of Hamburg Environmental Ministry
- > **1981 – 84** Head of Department of Environmental Policy, Waste Management and Air Pollution Control at the Hessian Ministry of Regional Development, Environment, Agriculture and Forestry

- > **2004 – 08** Head of risk management RWE AG
- > **2000 – 04** RWE Trading GmbH, various management positions in finance and risk controlling
- > **1995 – 00** RWE Energie AG, various positions in finance and risk controlling
- > **1990 – 95** Ruhr-University Bochum, research associate

- > **2004 – 08** Managing Director of npower renewables Ltd, RWE npower
- > **2001 – 04** RWE npower (Retail) Head of Business Transformation
- > **1998 – 01** National Power and Innogy plc, USA, various executive management positions
- > **1984 – 98** National Power, UK, various power plant management & operations positions

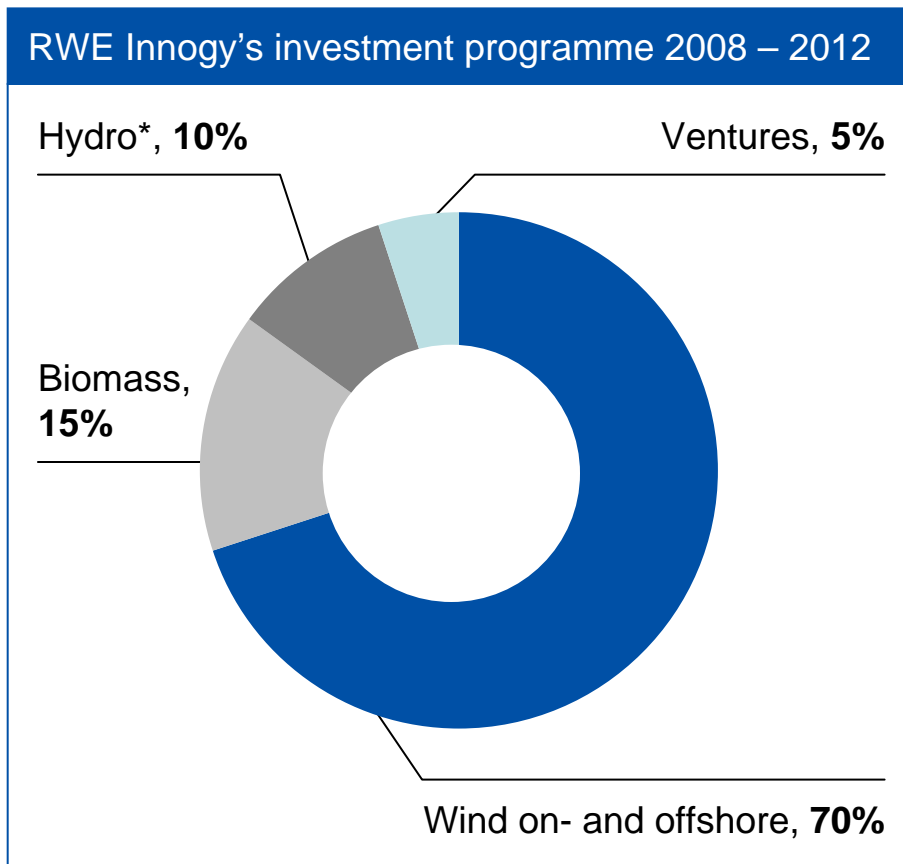
We will be growing the business, but value creation is superior to additional megawatts



- > Strong diversified position in renewable energy as well as a significant realizable project pipeline
- > We want to more than triple our installed capacity by 2012 and exceed 10 GW by 2020
 - **Strong organic growth** (incl. development of acquired pipeline) and strategic acquisitions
 - **Value creation** in line with RWE's strict investment criteria
- > Driving **innovation** in future renewable technologies

¹⁾ RWE Innogy capacity by year-end 2007, composed of 1,100 MW capacity in operation and 211 MW under construction (pro rata).

We aim to invest an average of more than €1 bn p.a. over the mid-term



- Focus will be on wind but also biomass and hydro.
- Wind will account for approx. 70% of investments. Roughly half of this will be dedicated to onshore wind.
- We will look for value adding acquisitions as well.
- Expected market growth in Europe
 - Onshore wind: >10% p.a.
 - Offshore wind: >30% p.a.
 - Biomass: >10% p.a.
 - Hydro: >1% p.a. (mature market)

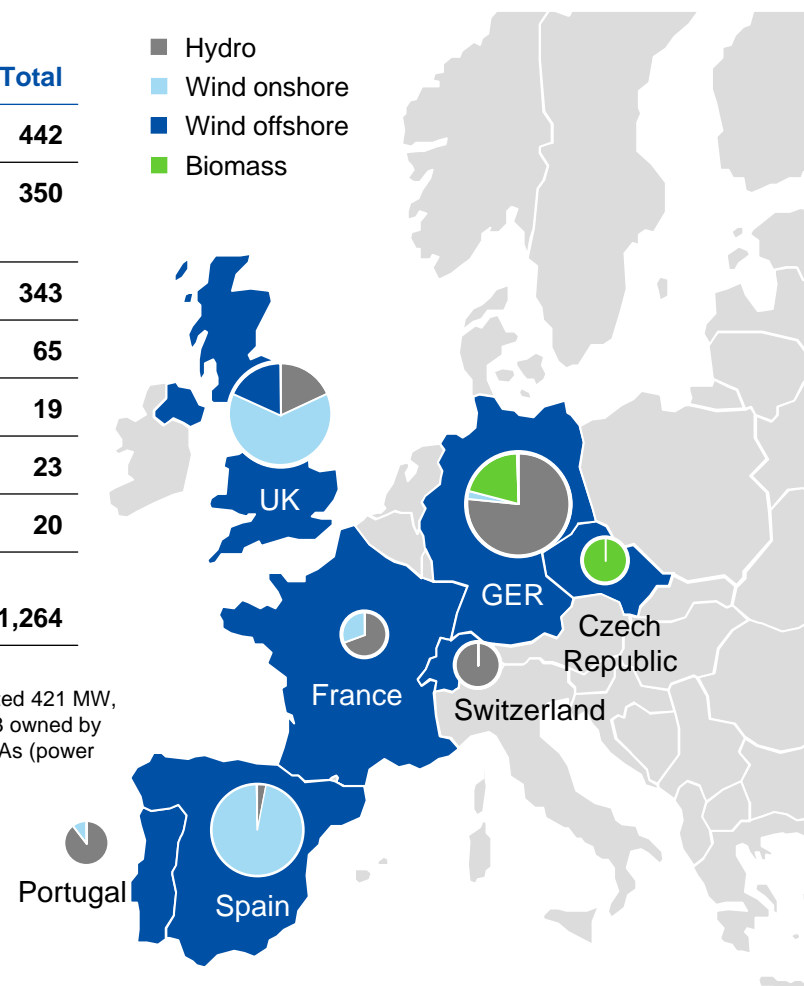
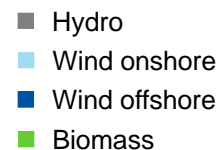
* Including geothermal and other renewables

Sources: RWE Innogy, Emerging Energy Research, Eurelectric, IEA, European Commission

Asset footprint by technology & region

(as of January 2009)

Capacity in MW _{el} (pro rata)	Hydro	Onshore wind	Offshore wind	Biomass	Solar PV & thermal	Total
Germany	337	11		92	1	442
UK	65	225 ¹⁾ [135 ²⁾	60 ¹⁾			350
Spain	10	333			< 1	343
France	45	20				65
Portugal	17	2				19
Switzerland	23					23
Czech Republic				20		20
Total RWE Innogy	497	592	60	113³⁾	2	1,264



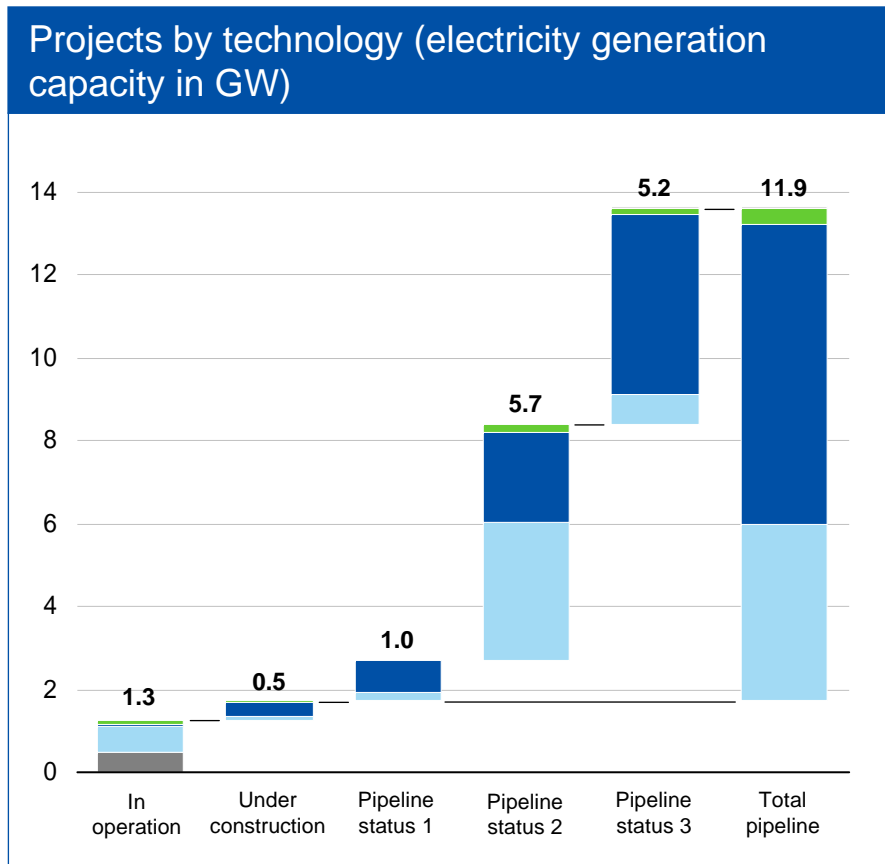
¹⁾ 225 MW = 29 MW Innogy wholly owned assets + 196 MW of Zephyr assets. RWE Innogy UK operated 421 MW, of this 391 MW (331 MW onshore/60 MW offshore) is owned by Zephyr Investments Ltd which is 1/3 owned by RWE Innogy UK. Of the 331 MW onshore, 196 MW is 100% contracted to RWE npower through PPAs (power purchase agreements). The remaining 29 MW is onshore and 100% owned by RWE Innogy UK and 100% contract to RWE npower through a PPA. The offshore capacity of 60 MW is 100% contracted to RWE npower through a PPA.

²⁾ An additional capacity of 135 MW is contracted to the NFPA (Non-Fossil Fuel Purchasing Agency, est. 1989 to support renewables by offering long term PPAs and new projects were typically contracted in this way until the introduction of the Renewables Obligation in 2002).

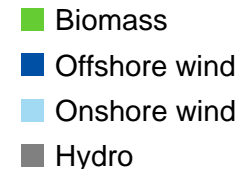
³⁾ Including 50 MW of biomass/fossil mix and 15 MW of fossil capacity; the thermal capacity of the plants in operation amounts to 517 MW_{th} in Germany and 292 MW_{th} in the Czech Republic.

12 GW pipeline geared towards on- and offshore wind

(pro rata, as of January 2009)



- > RWE Innogy with 1,264 MW_{el} assets in operation and 453 MW_{el} under construction – focus of portfolio on wind (63%) and hydro (29%) as well as biomass (8%)
- > Total pipeline with projects until 2020 amounts to 11.9 GW_{el} – strongly geared towards onshore (36%) and offshore wind (61%)



Note:

Pipeline status 1 – Project consented, not yet under construction

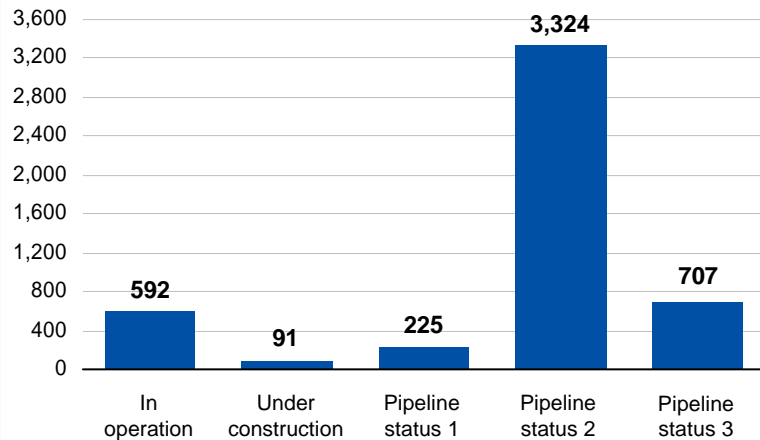
Pipeline status 2 – Prospects (not consented) – land agreements in place, environmental impact studies commenced

Pipeline status 3 – Identified opportunities – sites identified, but no land agreements – initial discussion on agreements

Onshore and offshore wind assets and pipeline

(as of January 2009, pro rata)

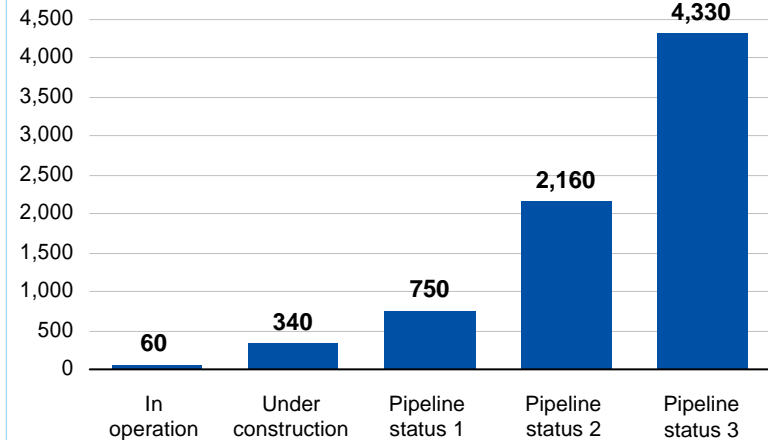
Onshore Wind (in MW)



Onshore wind assets & pipeline

- > 592 MW onshore wind farms in operation (of which Zephyr UK 196 MW under economic control of RWE Innogy) and 91 MW under construction
- > Onshore wind pipeline of 4.3 GW - 3 major contributors are UK, CEE and Italy

Offshore Wind (in MW)



Offshore wind assets & pipeline

- > 60 MW offshore wind farm (North Hoyle) in operation and 340 MW (Rhyl Flats, Greater Gabbard) under construction
- > Offshore wind pipeline of 7.2 GW (among others Gwynt y Môr 0.75 GW and Triton Knoll 1.2 GW in UK, Nordsee 1 in Germany 0.96 GW as well as 1.8 GW in NL)

Note:

Pipeline status 1: Project consented, not yet under construction

Pipeline status 2: Prospects (not consented) – land agreements in place, environmental impact studies commenced

Pipeline status 3: Identified opportunities – sites identified, but no land agreements – initial discussion on agreements

Main business achievements in 2008

Wind onshore

- > Access to 3 further wind energy projects in **Poland** (150 MW).
- > Acquisition of 100% in **Spanish** wind power operator Urvasco Energía S.A. (6 wind farms with 150 MW).
- > Acquisition of 6 projects in the **Czech Republic** (100 MW) as well as local project development company.
- > JV (50/50) with **Italian Fri-El Green Power** S.p.A. (960 MW as well as more than 12 biomass projects).
- > Acquisition of wind farm projects in western **Hungary** (300 MW) and local project development company.
- > Acquisition of additional 23.75 % stake in **Spanish** wind farm Las Aldehuelas (now owning 48% of 47.2 MW)

Wind offshore

- > Acquisition of 50% stake in UK offshore wind farm **Greater Gabbard** (509 MW) from SSE.
- > Consent for 750 MW offshore wind farm **Gwynt Y Môr** received in December 2008.
- > Acquisition of German offshore wind project **North Sea Windpower 3** (960 MW).

Biomass

- > Acquisition of consented project **Helius Stallingborough** (65 MW_{el}) in Lincolnshire / UK
- > Biomass-fired cogeneration plant with the municipal utility of **Troisdorf / Germany** (18 MW_{th} and 7.5 MW_{el}).
- > 6.5 MW_{th} Biogas plant in Güterglück in the state of **Saxony-Anhalt**.
- > Construction start at **Wittgenstein** inter-municipal industry park (30 MW_{th} and 8 MW_{el}).

New technologies

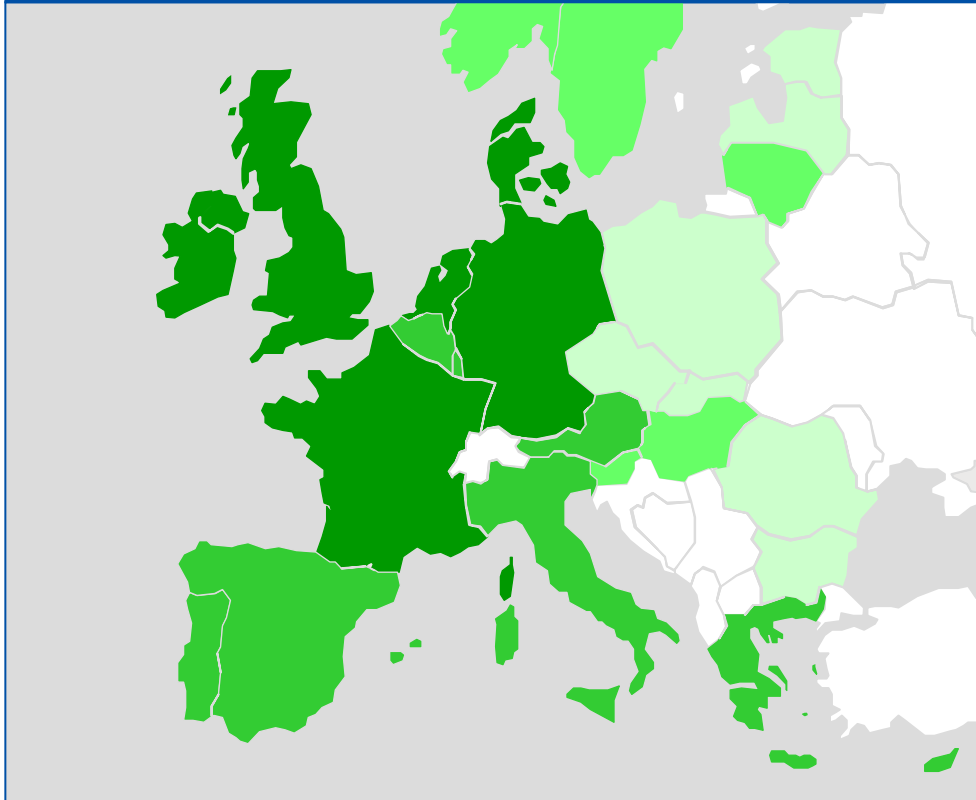
- > Acquisition of a 25% share in Dutch start-up company **Topell**, which holds the worldwide licence to the Torbed reactor allowing them to setup a ground breaking process for the production of torrefied biopellets.
- > Minority stake in **Quiet Revolution** Ltd in the UK, an innovative manufacturer of small vertical axis wind turbines (6 kW)



- Build up a new, lean, international organisation by integrating existing businesses from the entire group
- Investments in projects and acquisition of approx. 1.3 bn € by the end of the year
- Scrutinized direct investment opportunities of 13 bn € (and 50 bn € follow up CAPEX) with a new organisation

Renewable Energy growth is crucial for RWE portfolio and remains high on the political agenda

Impact of Renewable Energy Directive on EU Member States



- > 20% target for renewable energy in Europe in 2020 were confirmed by head of Member States during the EU Summit 11/12 December 2008
- > Strong volume growth in RWE Innogy's core markets brings excellent business opportunities

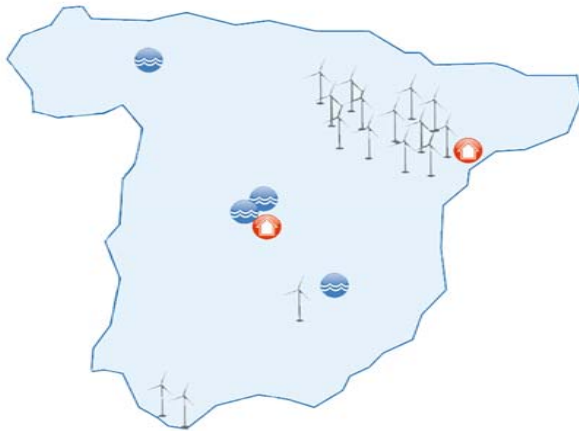
Headroom for growth (difference between 2005 and 2020 targets):

- < + 8 %
- + 8 % to + 10 %
- + 10 % to + 12 %
- > + 12 %



RWE Innogy already active in the markets with significant headroom

Strong growth potential in Spain and Italy



Existing assets in Spain

Spain

- > Acquisition of operating assets
- > Advanced onshore project pipeline
- > Biomass target of 100 MW_{el} by 2012 and pipeline of some 450 MW_{el}
- > Growth of fastly growing wood plantation
- > Emerging technologies , solar thermal, offshore wind under observation

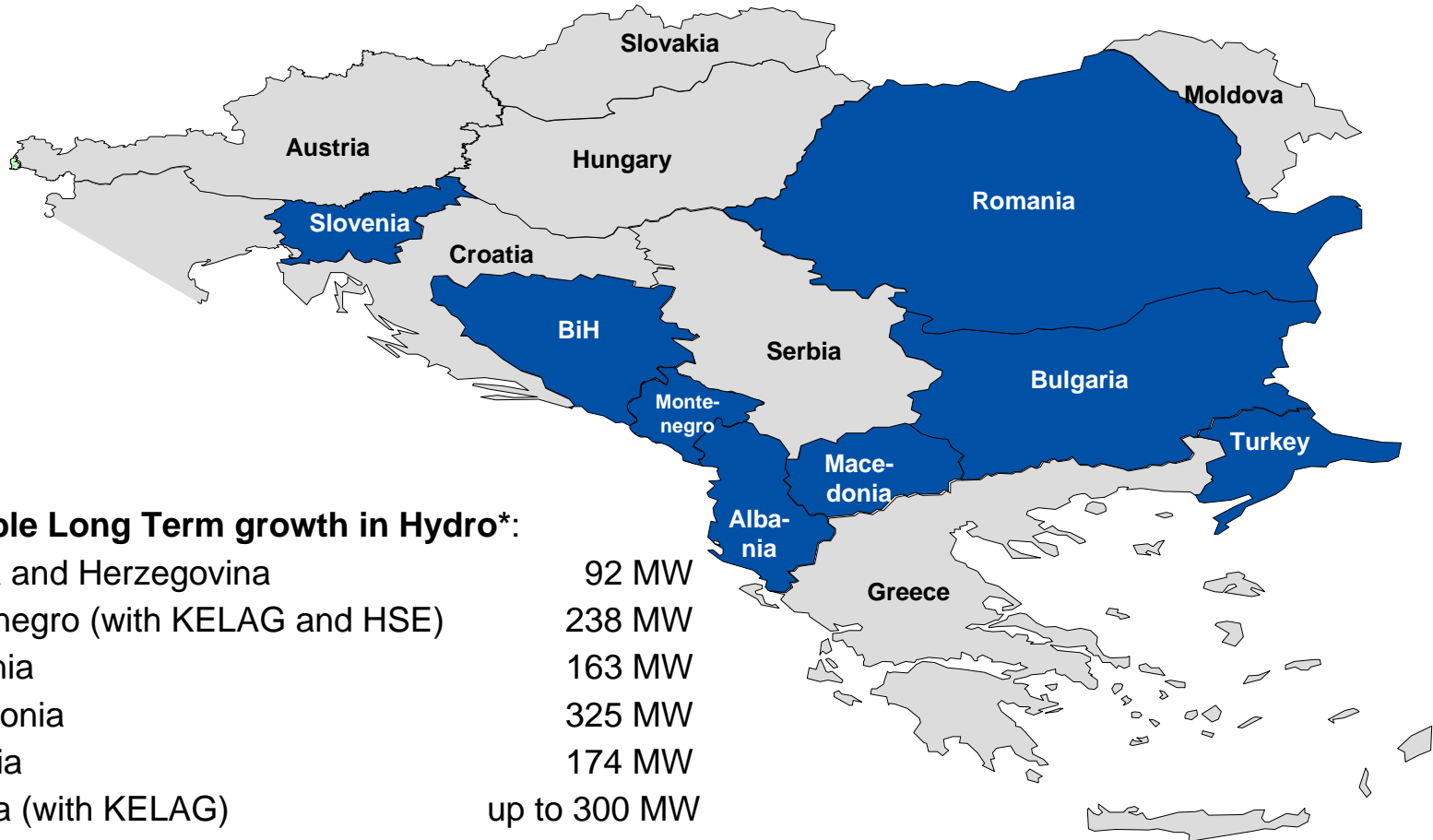
Italy

- > Joint-Venture with Fri-EI to develop a strong position in wind and biomass
- > Biomass portfolio of about 100 MW_{el} planned by 2012
- > Different technologies and raw materials for diversification of biomass feedstock
- > Nearly 2,000 MW wind projects planned



Planned assets in Italy

SEE as target market for hydro

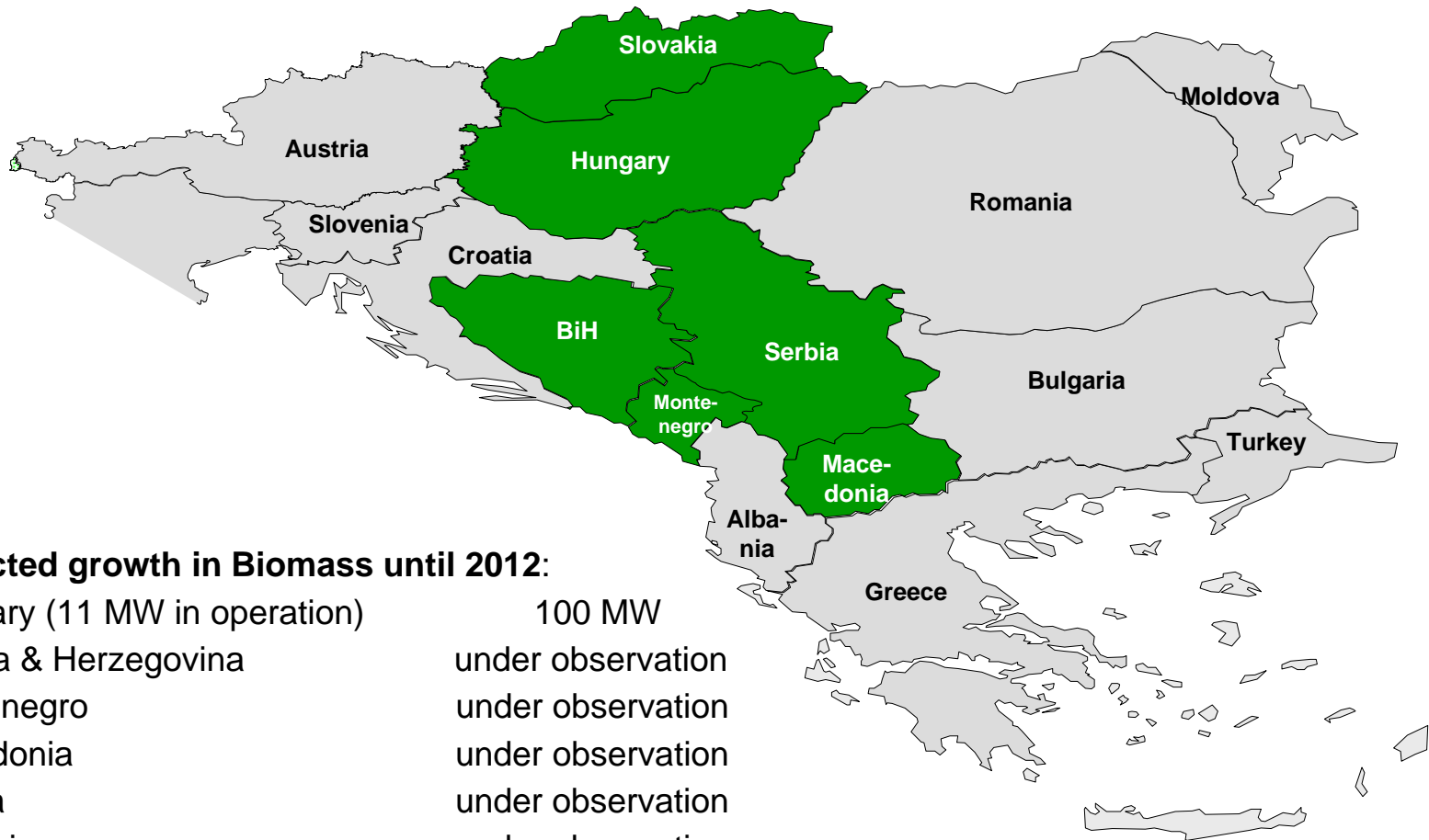


Possible Long Term growth in Hydro*:

Bosnia and Herzegovina	92 MW
Montenegro (with KELAG and HSE)	238 MW
Romania	163 MW
Macedonia	325 MW
Bulgaria	174 MW
Albania (with KELAG)	up to 300 MW
Turkey	up to 2,455 MW

* partly driven by Group activities together with Business Development

SEE as target market for biomass



Expected growth in Biomass until 2012:

Hungary (11 MW in operation)	100 MW
Bosnia & Herzegovina	under observation
Montenegro	under observation
Macedonia	under observation
Serbia	under observation
Slovakia	under observation

* partly driven by Group activities together with Business Development

SEE as target market for future wind growth



* partly driven by Group activities together with Business Development

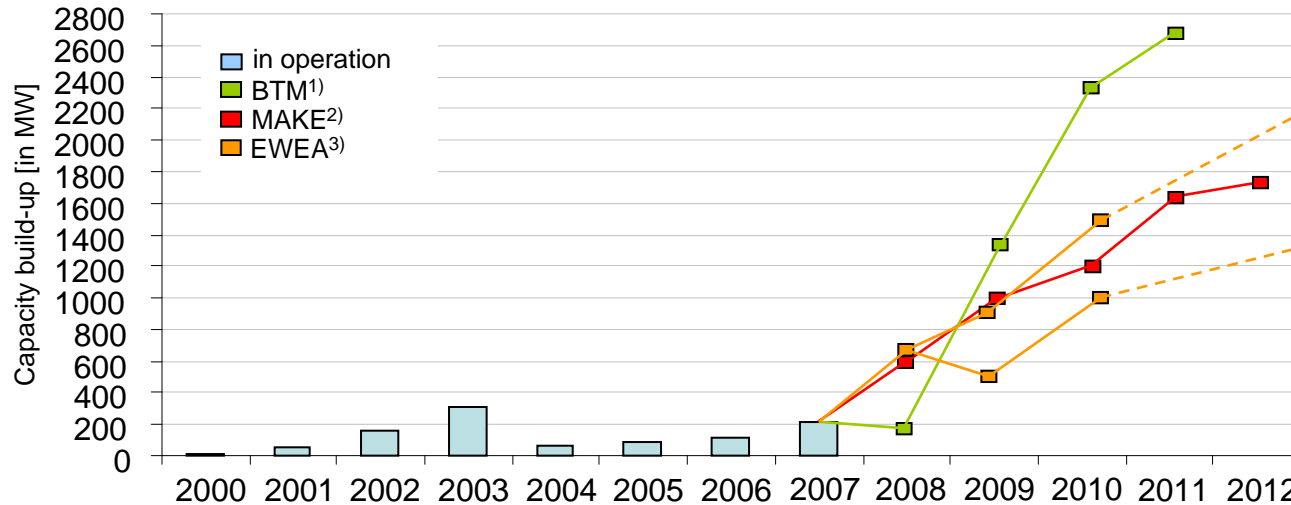
Ambitious targets in offshore wind as an essential part of growth

- > RWE Innogy is well positioned in the UK offshore market due to past activities from Npower renewables
- > Offshore market in general immature and industry faced with bottlenecks (turbines, vessels)
- > Strategy focus on securing bottlenecks and optimising of matrix project organisation to mitigate risks and to meet targets

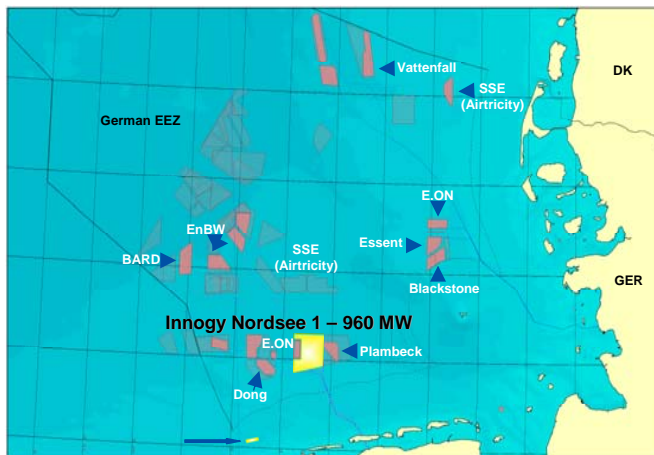
- > Opportunity to be one of the top three offshore wind power plant operators until 2012
- > RWE Innogy currently owns less than 5% of rated power of offshore wind power plants in operation, top three players are DONG (23%), Vattenfall (20%), Centrica (17%)



Market development in offshore wind



1) BTM Consult, „World Market Update 2006“
 2) MAKE Consulting, „The Wind Forecast – Market Outlook – (September 2007) and updated figures from 08.02.2008“
 3) EWEA, „Delivering Offshore Wind Power in Europe“, December 2007



RWE Innogy short to mid-term offshore projects

	2009	2010	2011	2012	2013	2014
Rhyl Flats (UK)	90MW					
Greater Gabbard (UK)	509 MW (RWE: 50%)					
Gwynt y Mor (UK)				750 MW		
Innogy Nordsee 1 (D)				960 MW (RWE: 51%-100%)		

Under construction
 Consented
 Planned

Trends in the wind market 2009

- > Shift from a sellers to a buyers market
- > US orders decline by 20 - 30% due to reduced gas prices and therefore decreased PPA price levels and unattractive PTC conditions
- > 10 % decline in orders in Europe in 2009
- > Capacity build-up in bottleneck components (gearboxes, bearings, blades, etc.) by 25 % in 2007 / 2008
- > Lead-times for turbines down to 8 months in 2009 from about 14 months in 2007/2008
- > Situation in Germany is somewhat different in 2009 as projects had been postponed in 2008 due to the new EEG coming into effect as of January 2009 (commissioning shifted from 2008 to 2009)

Biomass CHP: focused on development of projects opportunities larger than 5 MW



- > Biomass enjoys favourable regulatory support in most European countries
- > Expected to contribute significantly to the EU renewables targets
- > Solid biomass plant technology is mature and mainly used for distributed power generation
- > Economic feasibility of projects strongly depends on access to feedstock which accounts for 25 – 40% of production costs

- > Utilization of CHP (combined heat and power) generation elevates efficiency and profitability (critical in some markets)
- > RWE Innogy extends the value chain and plants own fast growing wood
- > Looking for 10,000 ha of land for plantations

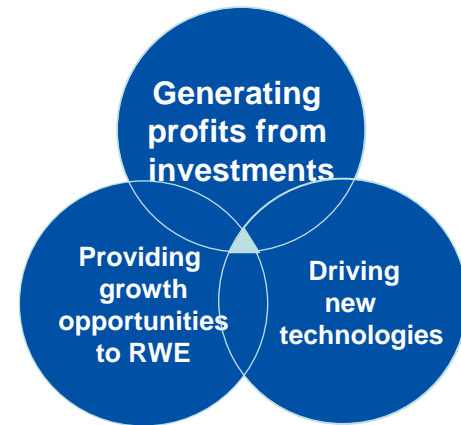


Biogas as new technologies for the future



- > RWE targets leading position in biogas technology and supply in Germany
- > Demand of biogas by RWE 500 – 1,000 GWh/a (2012)
- > RWE will be active on the entire value chain (production, contracting and energy related services and sales)

RWE Innogy Ventures – Enabling new technologies and future growth



3 main ambitions



Size of Investment	€3.3 million
Equity stake	25 % minority stake
Country	Netherlands
Technology	Torrefaction & pelletisation to produce pellets for co-firing biomass in hard coal plants Proven reactor technology
Market	Strong growth in pellet market expected Strong growth in biomass co-firing market expected
Product	Biocoal pellets: - solving biomass transport problem - solving biomass/food competition - offering homogenous product characteristics









Size of Investment	€7.5 million
Equity stake	27 % minority stake
Country	England



Technology	Small vertical axis wind turbines Triple-helix-shaped Fleet leader and first production proven
Market	Easy grid access and permission to build No electricity distribution losses or charges Volume enables mass production for low cost
Product	Flagship product scalable: 6 kW QR5 to 40 kW Very quiet & aesthetic Designed to optimise turbulent winds

Our vision for RWE Innogy in 2020

RWE Innogy aims to ...

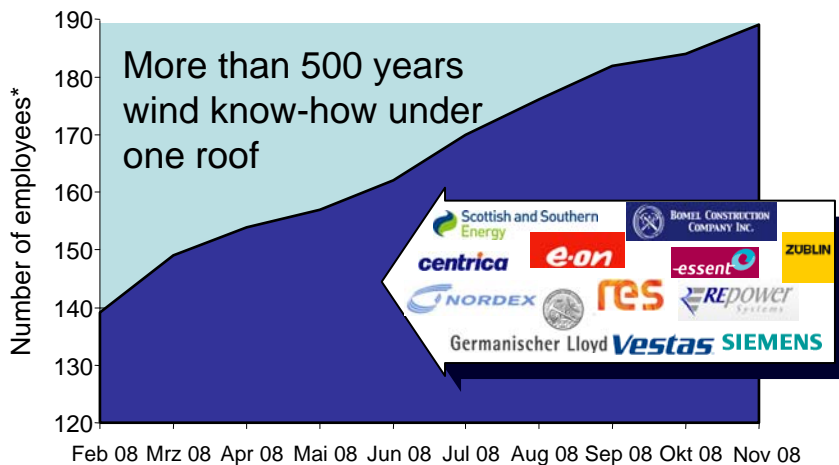
-  be among the top 5 companies in the European renewable energy sector
-  contribute to the Group's growth strategy
-  provide sustainable value added to the RWE Group
-  be a key element in RWE's CO₂ reduction programme
-  stand for state of the art operation of renewable technology
-  be a leading player in developing new renewable technologies

Back-up

Managing of risks and challenges needs strong management team and new approaches

- > Entire value chain is managed by RWE Innogy itself
 - via multi-contracting approach for own projects
 - MSA for M&A projects

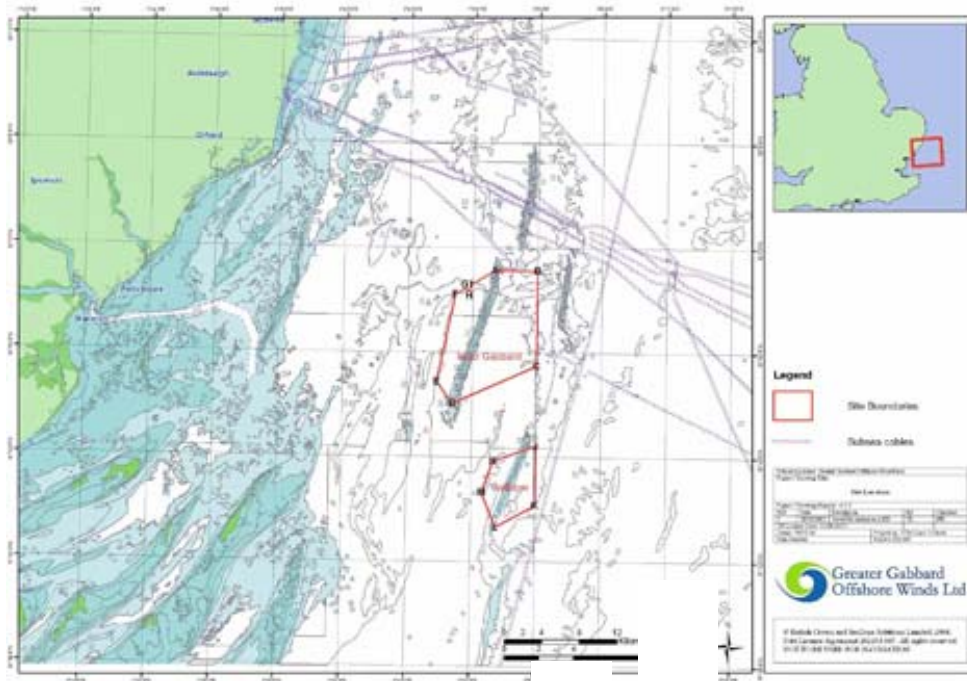
- > Reduce bottlenecks:
 - Framework contracts with turbine suppliers
 - Own vessels for installation



- > Within a very short period of time Innogy built an experienced management and project team to tackle the challenges

- > Strong expertise in project management
 - Experienced team
 - Collaboration with RWE Power and RWE npower to align with best practice in project management
 - Project management steering groups are chaired by the COO personally

Purchase of 50% of Greater Gabbard from SSE – Another step towards a broad offshore project portfolio

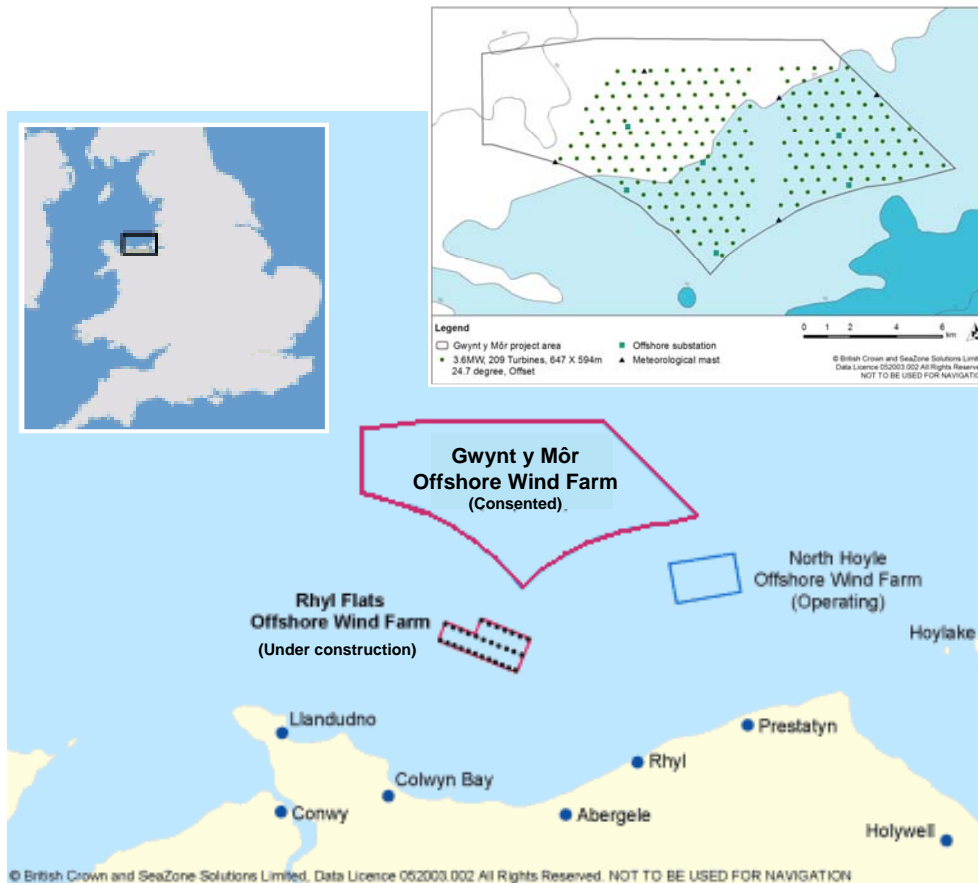


- **140 x Siemens 3.6 MW turbines (509MW)**
- 25-47 km offshore, 24-34 m depths, 147 km²
- 50 year Crown Estate lease
- **Investment of around £ 1.3 bn** excluding the connection to the electricity grid
- Beginning of **first electricity production scheduled for 2010, fully operational in 2011**
- Good wind speeds, load factors projected to be at top end for current European Offshore
Developed by Airtricity/Fluor, RWE purchased 50% share in Oct 2008
- Strong counterparties: Turbine Supply Agreement with Siemens; BOP Contract (EPC wrap) with Fluor.



Greater Gabbard - one of the furthest advanced Round 2 offshore wind projects and a strategic relationship with one of the other key players in the renewable sector

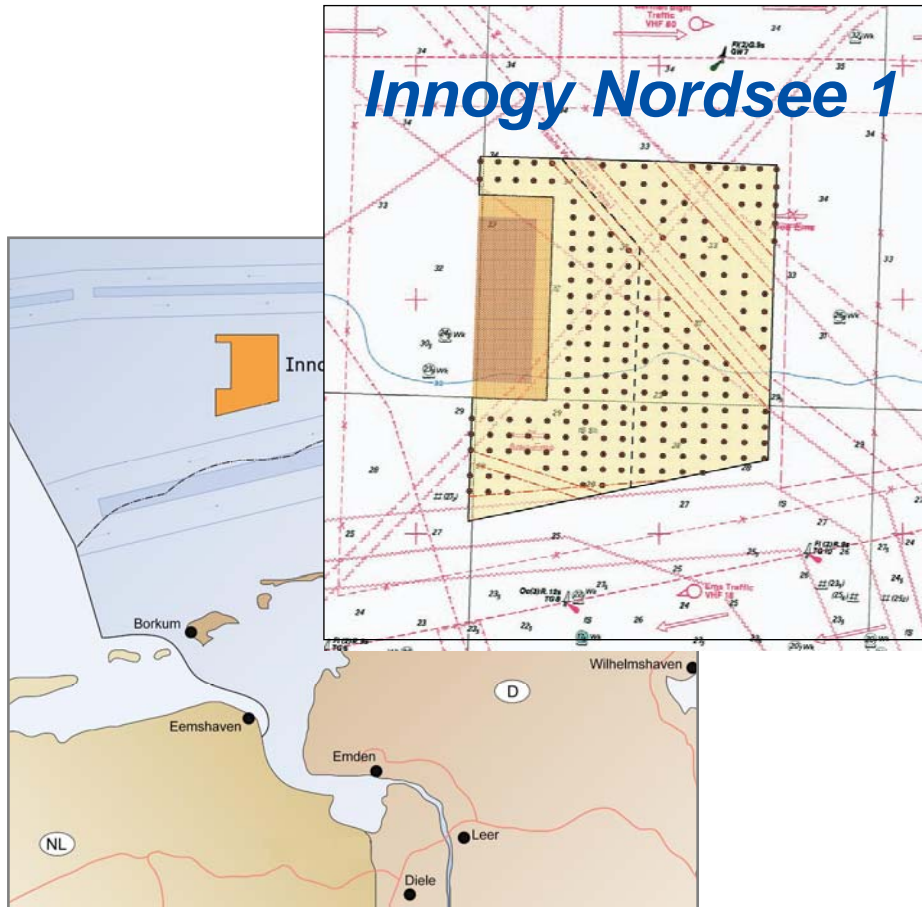
Consent granted for offshore wind farm Gwynt y Môr



- **150 x 5MW or 208 x 3.6 MW turbines (total capacity 750 MW)**
- **13 – 15 km off the coast of North Wales, 12-34 m depths, 124 km²**
- **The wind farm has the potential to generate enough power every year to supply the average needs of 2% of UK households.**

- **Section 36 consent application submitted November 2005**
- **Consent awarded in December 2008**
- **Total investment €2.5 bn**
- **Installation in three stages with 250 MW each in 2011 – 2014**
- **First generation in 2012, full generation in 2014**

Acquisition of German offshore project (NSWP3) becomes Innogy Nordsee 1



- Largest project off the German coast with **capacity of 960 MW**, renamed Innogy Nordsee 1
- **150 to 180 wind turbines with 5 or 6 MW each** – negotiations with REpower concerning a framework agreement at very advanced stage
- 40 km north of the North Sea island of Juist, water depth 26 – 34 m - project area 150 km²
- Just under **4,000 full load hours** according to site evaluations
- Innogy Nordsee 1 **unconsented, consent likely in end of 2009** due to inclusion in offshore priority area (Raumordnungsverfahren)
- **Total investment €2.8 bn**
- **Commissioning of first turbines in 2011, fully operational in 2015**