

MVV ENERGIE  
ENERGISING THE FUTURE

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# RETHINKING ENERGY

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**FACT BOOK**  
1<sup>ST</sup> HALF OF 2012/13 PURSUANT TO IFRS

15 MAY 2013



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# We see ourselves as an active shaper and market player in the conversion of the energy system

## ▶ **Further expansion in our market positions**

- Nationwide electricity and gas sales
- Direct marketing of renewable energies

## ▶ **Investments consistent with strategy initiated**

- Renewable energies (onshore wind power, biomass, biomethane)
- Energy from waste plant in Plymouth
- District heating storage facility at large power plant in Mannheim (Grosskraftwerk Mannheim – GKM)

## ▶ **Group-wide utilisation of expertise available at MVV Trading**

- Clean dark spread (CDS) hedging
- Structured procurement

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# KEY FINANCIAL DATA FOR THE 1<sup>ST</sup> HALF OF 2012/13

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# Key figures of the MVV Energie Group for the 1<sup>st</sup> half of 2012/13 financial year – Adjusted

in Euro million

	2012/13 (1.10.-31.3.)	2011/12 (1.10.-31.3.)	% change
External sales excl. electricity and natural gas taxes	<b>2 231</b>	2 090	+7
Adjusted EBITDA <sup>1</sup>	<b>261</b>	260	0
Adjusted EBIT <sup>2</sup>	<b>180</b>	180	0
Adjusted EBT <sup>2</sup>	<b>147</b>	148	-1
Adjusted net surplus for period <sup>2</sup>	<b>101</b>	101	0
Adjusted net surplus for period after minority interests <sup>2</sup>	<b>78</b>	87	-10
Adjusted earnings per share <sup>2</sup> in Euro	<b>1.19</b>	1.32	-10
Free Cash flow <sup>3</sup>	<b>-104</b>	-237	+56

<sup>1</sup> excluding non-operating IAS 39 derivative measurement items, before restructuring expenses and including interest income from finance leases

<sup>2</sup> excluding non-operating IAS 39 derivative measurement items, excluding restructuring expenses and including interest income from finance leases

<sup>3</sup> cash flow from operating activities less cash-effective investments in intangible assets, property, plant and equipment and investment property

# External sales by reporting segments in the 1<sup>st</sup> half of 2012/13 financial year

in Euro million

	2012/13 (1.10.-31.3.)	2011/12 (1.10.-31.3.)	% change
Generation and Infrastructure	188	163	+15
Trading and Portfolio Management	617	519	+19
Sales and Services	1 261	1 164	+8
Strategic Investments	163	242	-33
Other Activities	2	2	0
<b>Total</b>	<b><u>2 231</u></b>	<b><u>2 090</u></b>	<b>+7</b>

# Adjusted EBIT by reporting segments in the 1<sup>st</sup> half of 2012/13 financial year

in Euro million

	2012/13 (1.10.-31.3.)	2011/12 (1.10.-31.3.)	% change
Generation and Infrastructure	85	83	+2
Trading and Portfolio Management	6	7	-14
Sales and Services	54	47	+15
Strategic Investments	31	38	-18
Other Activities	4	5	-20
<b>Total</b>	<b><u>180</u></b>	<b><u>180</u></b>	<b>0</b>

# Reconciliation of EBIT (income statement) with adjusted EBIT in the 1<sup>st</sup> half of 2012/13 financial year

in Euro million	2012/13 (1.10.-31.3.)	2011/12 (1.10.-31.3.)	+/- change
EBIT as reported in income statement	<b>184</b>	149	+35
Derivative measurement items under IAS 39	+1	+29	-28
Restructuring expenses	-7	–	-7
Interest income from finance leases	+2	+2	0
Adjusted EBIT	<b><u>180</u></b>	<b><u>180</u></b>	0



# Key factors in the 1<sup>st</sup> half of 2012/13 financial year affecting year-on-year adjusted EBIT performance

## Positive factors

- ▶ Loss of charge from extended downtime at joint power plant (GKK) in Kiel due to turbine damage in previous year
- ▶ Higher grid fees
- ▶ Weather-related increase in district heating and gas turnover in the 1<sup>st</sup> half of 2012/13 financial year
- ▶ Expansion of renewable energy generation portfolio

## Negative factors

- ▶ Decreased waste volumes and lower waste prices as well as higher charges due to turbine damage repairs
- ▶ Discontinuation of contribution to earnings due to the sale of the shareholding in Stadtwerke Solingen
- ▶ Since January 2013, the previously freely allocated CO<sub>2</sub> emission allowances to be auctioned.
- ▶ Continuing low clean dark spread (CDS) and falling electricity prices on the wholesale market

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# KEY FINANCIAL DATA FOR THE 2011/12 FINANCIAL YEAR

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# We achieved all our targets in the 2011/12 financial year

▶ **Sales target: “slight year-on-year sales growth (previous year’s figure excluding electricity and natural gas taxes: Euro 3.59 billion)”**

▶ **With actual sales of Euro 3.89 billion this target has been exceeded.**



▶ **Earnings target: “adjusted EBIT of around Euro 220 million on an operating level (previous year: Euro 242 million)”**

▶ **With actual adjusted EBIT of Euro 223 million this target has been achieved.**



▶ **Proposal by Executive and Supervisory Boards to pay an unchanged dividend of Euro 0.90 per share for the 2011/12 financial year**



# Key figures of the MVV Energie Group for the 2011/12 financial year – Adjusted

in Euro million	2011/12	2010/11	% change
External sales excl. electricity and natural gas taxes <sup>1</sup>	<b>3 895</b>	3 600	+8
Adjusted EBITDA <sup>1,2</sup>	<b>399</b>	404	-1
Adjusted EBIT <sup>3</sup>	<b>223</b>	242	-8
Adjusted EBT <sup>3</sup>	<b>151</b>	179	-16
Adjusted annual net surplus <sup>3</sup>	<b>98</b>	125	-22
Adjusted annual net surplus after minority interests <sup>3</sup>	<b>80</b>	108	-26
Adjusted earnings per share <sup>3</sup> in Euro	<b>1.21</b>	1.63	-26
Free cash flow <sup>4</sup>	<b>23</b>	163	-86

1 previous year`s figure adjusted

2 excluding non-operating IAS 39 derivative measurement items, before restructuring expenses in previous year and including interest income from finance leases

3 excluding non-operating IAS 39 derivative measurement items, excluding restructuring expenses in previous year and including interest income from finance leases

4 cash flow from operating activities less cash-effective investments in intangible assets, property, plant and equipment and investment property

# External sales by reporting segments in the 2011/12 financial year

in Euro million	2011/12	2010/11	% change
Generation and Infrastructure	354	327	+8
Trading and Portfolio Management	976	800	+22
Sales and Services	2 162	2 096	+3
Strategic Investments	398	373	+7
Other Activities	5	4	+25
<b>Total</b>	<b><u>3 895</u></b>	<b><u>3 600</u></b>	<b>+8</b>

1 previous year`s figure adjusted (amended presentation of building cost subsidies)

# Adjusted EBIT by reporting segments in the 2011/12 financial year

in Euro million	2011/12	2010/11	% change
Generation and Infrastructure	141	138	+2
Trading and Portfolio Management	3	24	-88
Sales and Services	21	39	-46
Strategic Investments	38	35	+9
Other Activities	20	6	+233
<b>Total</b>	<b><u>223</u></b>	<b><u>242</u></b>	<b>-8</b>

1 starting in 2011/12 financial year: overhead expenses allocated to reporting segments in line with causation on a capital employed basis (previous year's figure adjusted)

## Reconciliation of EBIT (income statement) with adjusted EBIT in the 2011/12 financial year

in Euro million	2011/12	2010/11	+/- change
EBIT as reported in income statement	198	253	-55
Derivative measurement items under IAS 39	+20	-46	+66
Restructuring expenses	–	+31	-31
Interest income from finance leases	+5	+4	+1
Adjusted EBIT	<u>223</u>	<u>242</u>	-19

# Key factors in 2011/12 financial year affecting year-on-year adjusted EBIT performance

## Positive factors

- ▶ Expansion of wind power business
- ▶ Sales of shares (24.9% in Maintal Werken, 49.9% in SW Solingen)
- ▶ Growth in nationwide electricity and gas sales
- ▶ Cost reductions

## Negative factors

- ▶ Extended downtime at joint power plant (GKK) in Kiel due to turbine damage
- ▶ Lower clean dark spread (CDS) due to falling electricity prices on the wholesale market and lower coal prices. However, electricity prices fell more markedly than coal prices.
- ▶ Special and one-off items at MVV Energiedienstleistungen subgroup
- ▶ Weather-related reduction in district heating and gas turnover in the first half of 2011/12 financial year



## Electricity and heating energy turnover in the 2011/12 financial year

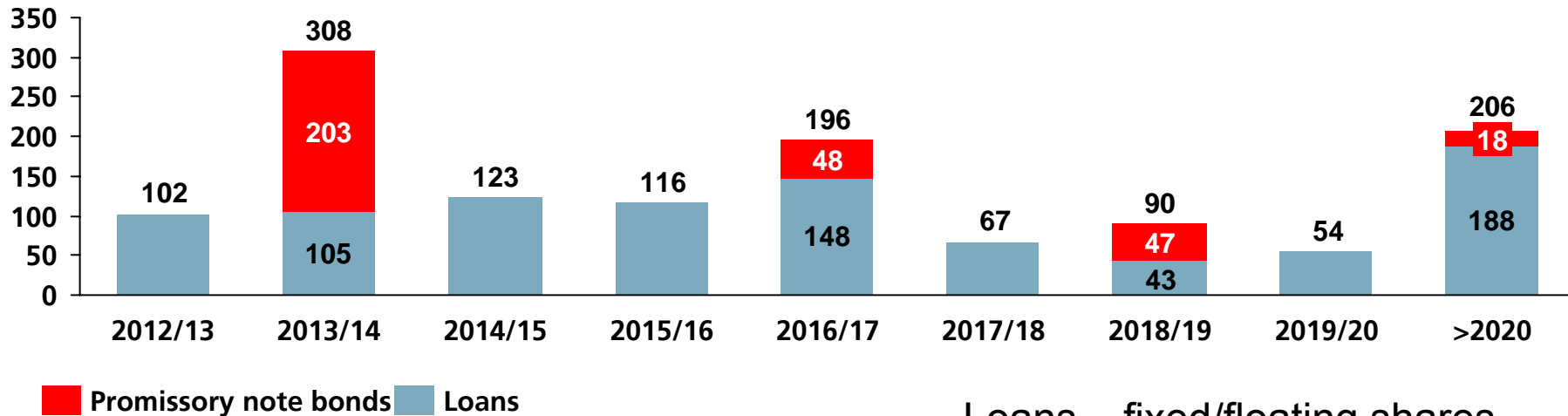
	2011/12	2010/11	% change
Electricity in kWh million	<b>28 283</b>	26 093	+8
of which Generation and Infrastructure	<b>93</b>	155	-40
of which Trading and Portfolio Management	<b>15 750</b>	12 855	+23
of which Sales and Services	<b>11 071</b>	11 678	-5
of which Strategic Investments	<b>1 369</b>	1 405	-3
District heating in kWh million	<b>6 888</b>	7 289	-6
of which Generation and Infrastructure	<b>274</b>	141	+94
of which Trading and Portfolio Management	<b>673</b>	669	+1
of which Sales and Services	<b>4 772</b>	5 226	-9
of which Strategic Investments	<b>1 169</b>	1 253	-7

## Gas and water turnover and combustible waste delivered in the 2011/12 financial year

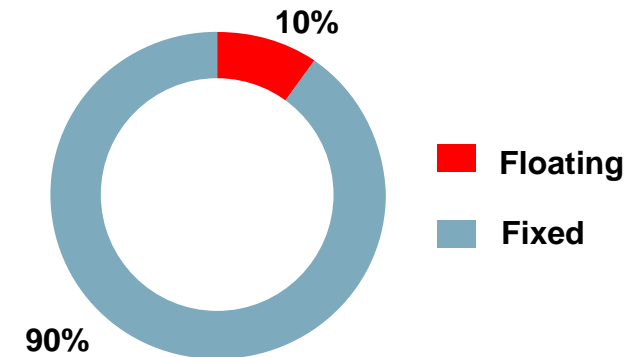
	2011/12	2010/11	% change
Gas in kWh million	<b>17 418</b>	10 888	+60
of which Generation and Infrastructure	<b>4</b>	–	+100
of which Trading and Portfolio Management	<b>7 762</b>	1 700	+357
of which Sales and Services	<b>7 567</b>	7 759	-2
of which Strategic Investments	<b>2 085</b>	1 429	+46
Water in Mio m <sup>3</sup>	<b>52.9</b>	53.7	-1
Combustible waste delivered in tonnes 000s	<b>1 897</b>	1 835	+3

# MVV Energie has a solid financing profile

## Repayment profile in Euro million



## Loans – fixed/floating shares



- ▶ Well-balanced maturity profile
- ▶ Long-term financing for investments, i.e. congruent terms
- ▶ High share of fixed interest agreements secures favourable rates on long-term basis
- ▶ Equity ratio of 36.2%

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# MVV ENERGIE – IMPLEMENTATION OF OUR STRATEGY

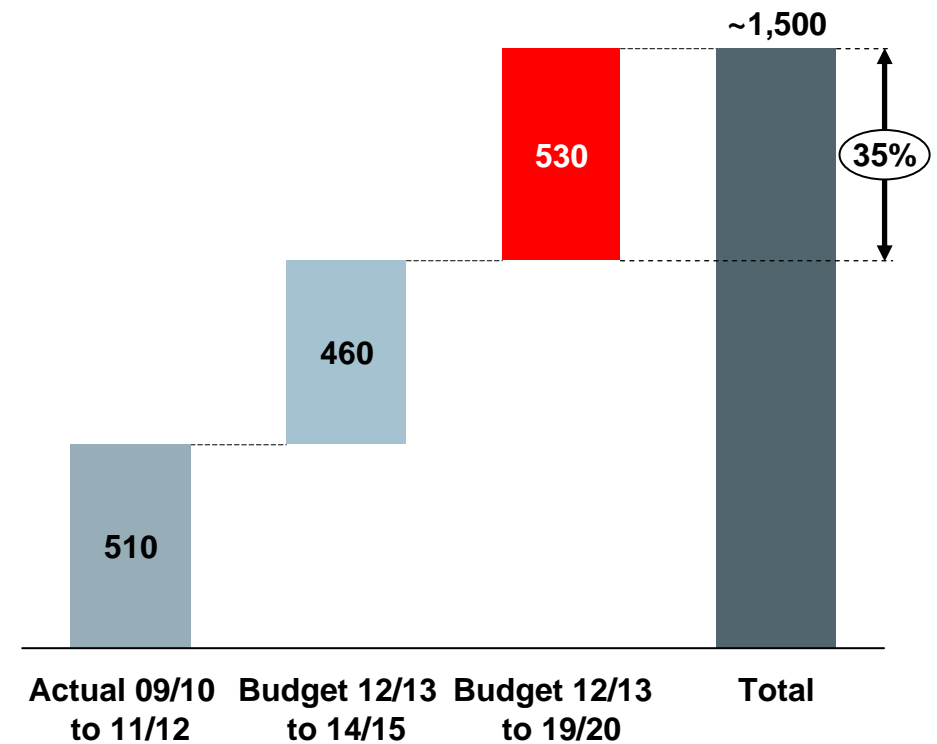
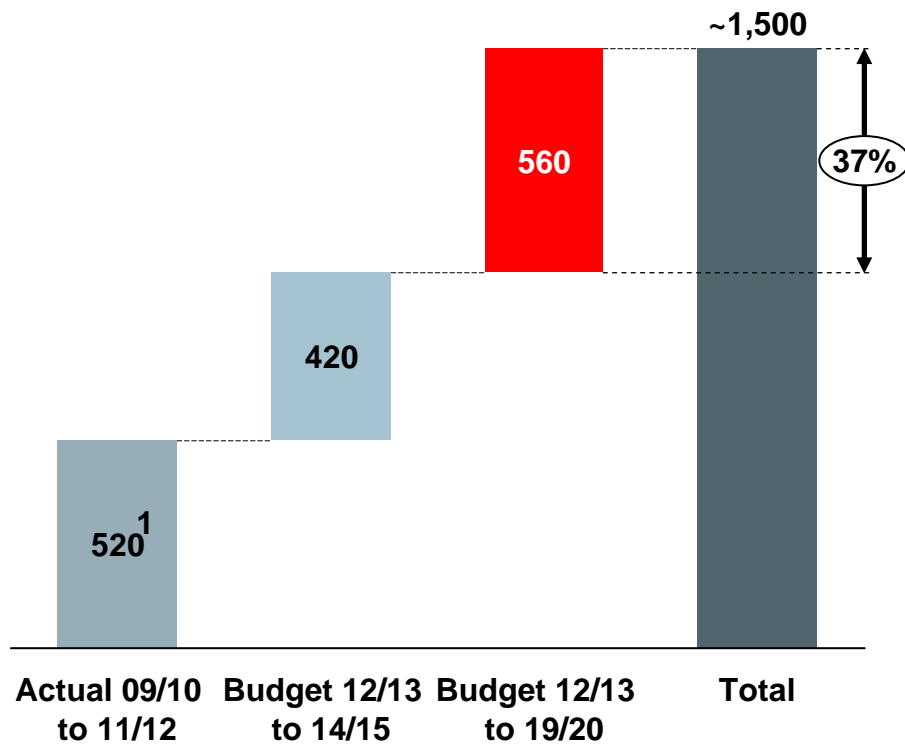
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# Implementation of investment programme at MVV Energie Group

**Growth:** approx. 63% implemented or decided

**Existing:** approx. 65% implemented or decided



■ Actual ■ Budget – outstanding ■ Budget – decided

<sup>1</sup> including assumption of liabilities upon acquisition of shareholdings

# Investment and growth

## Investments<sup>1</sup> in 2011/12 financial year



<sup>1</sup> Investments in intangible assets, property, plant and equipment, investment property, as well as payments for the acquisition of fully and proportionately consolidated companies and other financial assets

### ▶ Existing business

- Optimising and preserving substance of supply facilities and distribution grids
- OptiMa energy efficiency project at the energy from waste plant in Mannheim

### ▶ Growth

- Extending the supply of district heating in Mannheim
- Construction of Klein Wanzleben and Kroppenstedt biomethane plant
- Construction of Kirchberg wind farm
- Construction of Plymouth energy from waste plant
- Contracting project Tübingen University Hospital
- Contracting project Federal Office for the Protection of the Constitution in Cologne
- Acquisition of Frassur GmbH, Mörfelden-Walldorf

# Biomass power plant project in Ridham Dock (UK): MVV Energie has started the construction work

## Biomass power plant Ridham Dock



### Investment and financing

- ▶ **Investment:** approx. Euro 140 million
- ▶ **Financing:** corporate funding
- ▶ **Start of main construction work:** April 2013
- ▶ **Launch of operations:** Spring 2015

### Technical data

- ▶ **Thermal use of waste wood volume:** 172,000 tonnes p.a.
- ▶ **Net electricity output:** 23.2 MW<sub>e</sub>
- ▶ **Electricity generation:** approx. 188 million kWh p.a.
- ▶ **Optional combined heat and power generation (CHP)**

### Broad and secure revenue base

- ▶ More than 1 million tonnes of waste wood in the catchment area
- ▶ State support of the production of renewable energy from biomass

# Acquisition of German onshore wind farm portfolio from Iberdrola



## Wind farm portfolio of Iberdrola

- ▶ **Launch of operations:** 2003 until 2008
- ▶ **Investment:** Euro 53 million
- ▶ **7 locations in 5 federal states**
- ▶ **Total of 40 wind turbines manufactured by GE and Gamesa:** of which
  - 22 MW in 2.0 MW capacity class
  - 34.5 MW in 1.5 MW capacity class
  - 3.4 MW in 0.85 MW capacity class
- ▶ **Output:** 63 MW<sub>el</sub>
- ▶ **Electricity output:** 108 million kWh p.a.  
(equivalent to consumption of 30,000 households)
- ▶ **CO<sub>2</sub> reduction:** 78,000 tonnes a year



# District heating storage facility at Grosskraftwerk Mannheim (GKM)



## District heating storage facility at GKM

- ▶ **Launch of operations:** Autumn 2013
- ▶ **Investment:** Euro 27 million
- ▶ **Height:** 36 metres
- ▶ **Diameter:** 40 metres
- ▶ **Capacity:** 43,000 cubic metres
- ▶ **Usable heat content:** 1.5 million kWh
- ▶ **Economic ownership and operations management:** MVV Energie
- ▶ **Construction and operation:** GKM

# Biomethane plant Kroppenstedt – second step towards building up a biomethane cluster in Sachsen-Anhalt

## Biomethane plant at Kroppenstedt location

- ▶ **Launch of construction work:** December 2012
- ▶ **Launch of operations:** End of 2013
- ▶ **Investment:** roughly Euro 14 million
- ▶ **Biogas production:** 63.5 million kWh p.a.
- ▶ **Gas output:** 695 Nm<sup>3</sup> per hour of biomethane (in natural gas quality)
- ▶ **Raw materials requirement:** approx. 78,000 tonnes p.a, mainly cow slurry/cow dung, maize silage and sugar beet
- ▶ **Planned operating term:** 26 years



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# OUTLOOK

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# Outlook for the 2012/13 financial year

▶ **Sales target:** “We expect our external sales (excluding electricity and natural gas tax) for the 2012/13 financial year as a whole to somewhat exceed the high figure of Euro 3.89 billion achieved in the previous year”.



▶ **Earnings target:** “Overall, in terms of operating earnings we expect our adjusted EBIT for the 2012/13 financial year as a whole to fall around 5% short of the figure of Euro 223 million reported for the 2011/12 financial year”.



▶ **Variables affecting the outlook**

- Development in energy prices relevant to our business (electricity, coal, gas, oil, CO<sub>2</sub> certificates)
- Development in waste prices in Germany
- Regulatory and competitive factors

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# FINANCIAL CALENDAR

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# Financial calendar 2012/13

- ▶ 18.12.2012 2011/12 Annual Report
- ▶ 18.12.2012 Annual Results Press Conference and Analysts` Conference in Frankfurt/Main
- ▶ 14.2.2013 Financial Report 1<sup>st</sup> Quarter of 2012/13
- ▶ 8.3.2013 Annual General Meeting in Mannheim
- ▶ 11.3.2013 Payment of Dividend
- ▶ 15.5.2013 Half-Year Financial Report of 2012/13 and Analysts` Conference Call
- ▶ 15.8.2013 Financial Report 3<sup>rd</sup> Quarter of 2012/13
- ▶ 12.12.2013 2012/13 Annual Report
- ▶ 12.12.2013 Annual Results Press Conference and Analysts` Conference in Frankfurt/Main

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**BACK UP**

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 **MVV** · Energie

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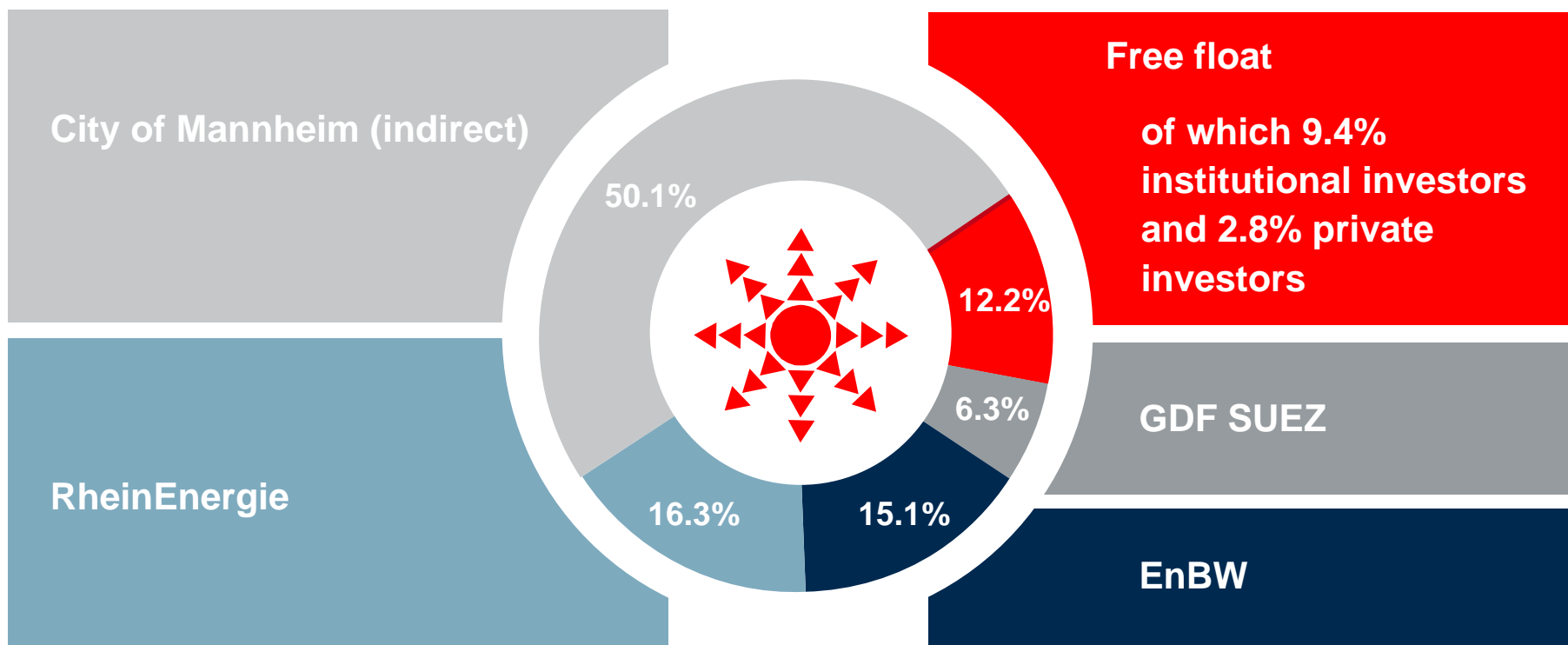
# THE SHARE OF MVV ENERGIE AG

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# Current shareholder structure and key figures of MVV Energie AG



▶ **No. of shares:**

65.907 million

▶ **Ø daily turnover:**

6,707 shares in 2011/12 FY

▶ **Market capitalisation:**

Euro 1,478 million

(Closing price on 14.5.2013:  
Euro 22.43 Euro)

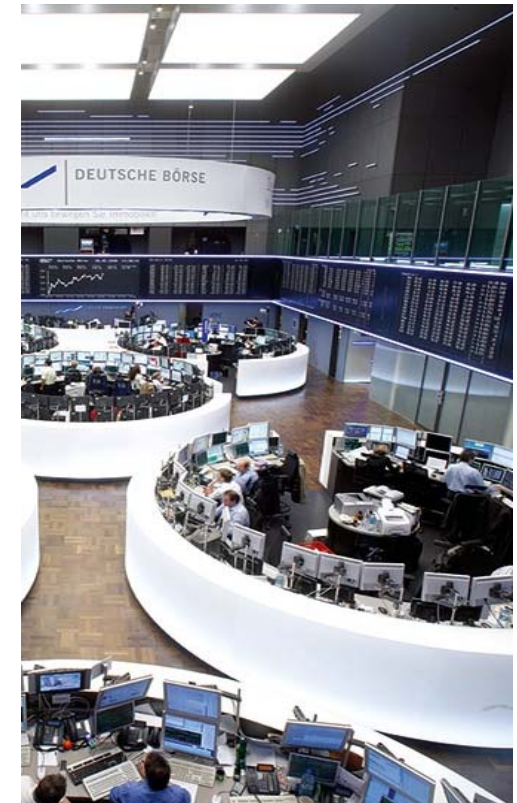
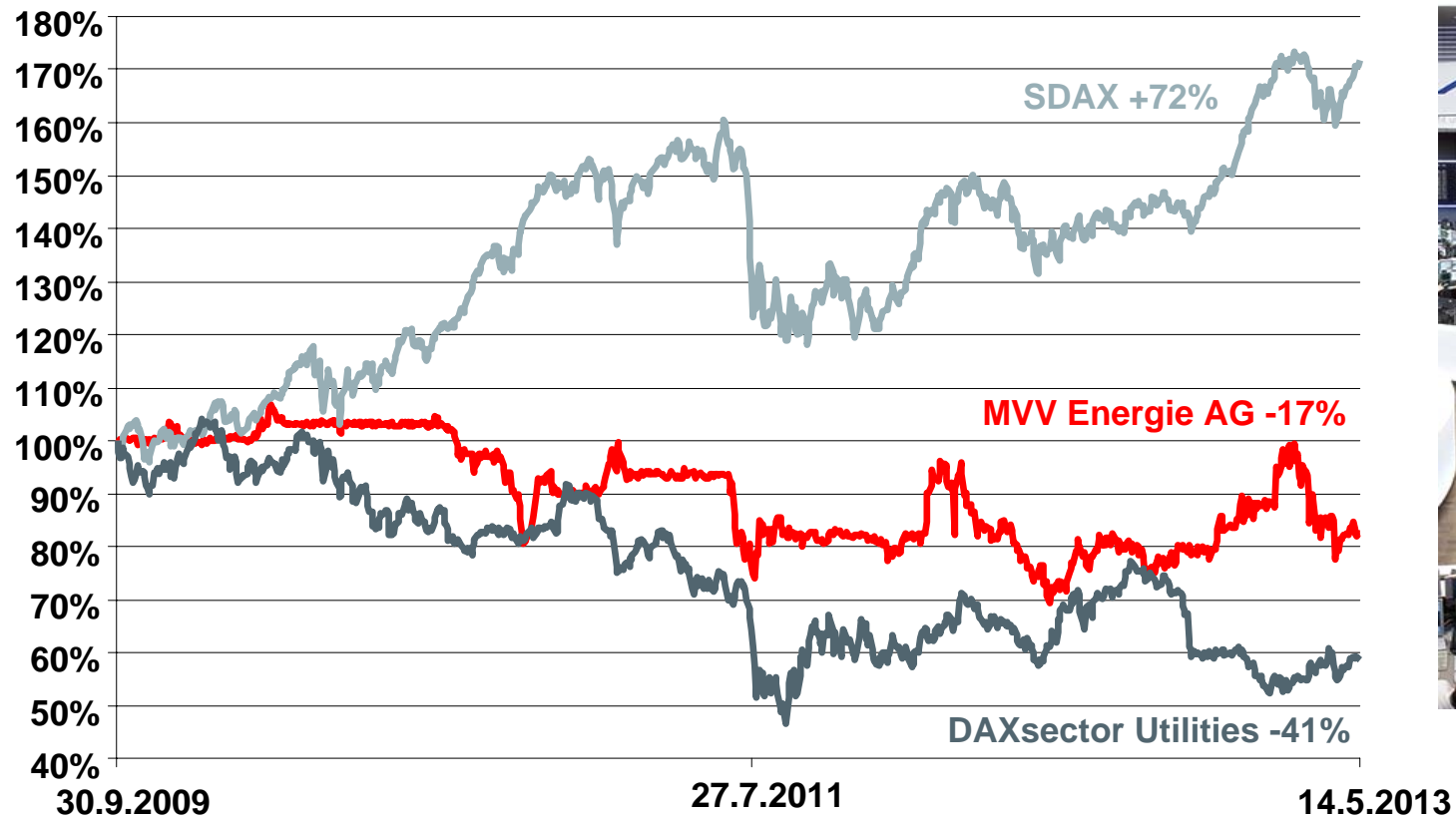
▶ **Free float:**

Euro 181 million

# Performance comparison of the MVV Energie AG share

ISIN DE000A0H52F5

XETRA Trading



Share chart as performance comparison (including dividend payments in March 2010, 2011, 2012 and 2013) with SDAX and DAXsector Utilities

## High dividend distribution in past eight years

Dividend	2011/12	2010/11	2009/10	2008/09	2007/08	2006/07	2005/06	2004/05
Dividend/Share (Euro)	<b>0.90</b>	0.90	0.90	0.90	0.90	0.80	0.80	0.75
Total dividend <sup>1</sup> (Euro million)	<b>59.3</b>	59.3	59.3	59.3	59.3	52.7	44.6	41.8
Closing price on 30.9. (Euro)	<b>21.39</b>	23.86	29.00	30.83	33.20	29.49	23.23	19.29
Dividend yield <sup>2</sup> (%)	<b>4.2</b>	3.8	3.1	2.9	2.7	2.7	3.4	3.9

1 with dividend entitlement in FY 2004/05: 55.7 million shares; FY 2005/06: 55.8 million shares;  
since FY 2006/07: 65.9 million shares

2 dividend yield based on respective closing price in XETRA trading on 30 September

# Advantages for our shareholders

## Well balanced portfolio

- ▶ Across major steps of the value added chain,
- ▶ across regions and
- ▶ across customers

## Green & clean

- ▶ No nuclear exposure in own generation
- ▶ Wind onshore, biomass and biomethane
- ▶ CHP and district heating
- ▶ R&D: Smart metering

## Ambitious capex programme until 2020

- ▶ Euro 3 billion in total of which
  - Euro 1.5 billion in growth
  - Euro 1.5 billion in replacement investments

## Solid balance sheet

- ▶ Long term investment horizon matched with long term maturities
- ▶ High equity ratio of 36.1%

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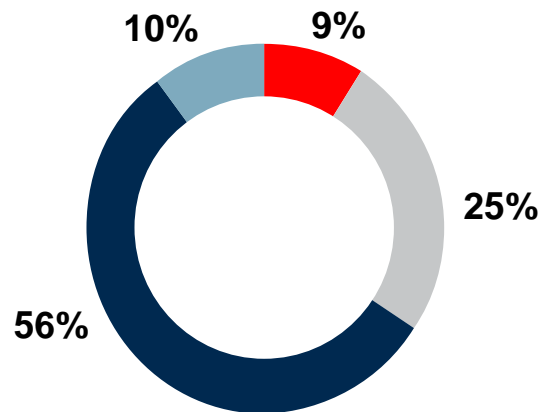
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# ADDITIONAL FINANCIAL INFORMATION

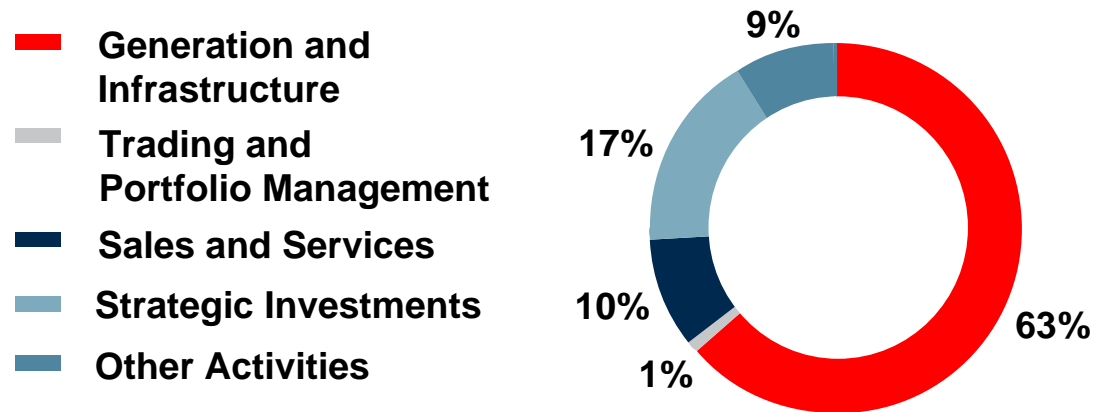
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# External sales and adjusted EBIT by reporting segments

Share of external sales in 2011/12 FY



Share of adjusted EBIT in 2011/12 FY



## External sales and adjusted EBIT performance by quarter

in Euro million	2011/12	2010/11	% change
1 <sup>st</sup> Quarter	1 018	950	+7
2 <sup>nd</sup> Quarter	1 072	951	+13
3 <sup>rd</sup> Quarter	888	785	+13
4 <sup>th</sup> Quarter	917	914	0
External sales in the financial year	<u>3 895</u>	<u>3 600</u>	+8
1 <sup>st</sup> Quarter	74	91	-19
2 <sup>nd</sup> Quarter	106	113	-6
3 <sup>rd</sup> Quarter	46	44	+5
4 <sup>th</sup> Quarter	-3	-6	+50
Adjusted EBIT in the financial year	<u>223</u>	<u>242</u>	-8

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# INVESTMENTS

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# Municipal utility companies and major locations of the MVV Energie Group



## MVV Energie Municipal Utilities

- 1 STADTWERKE KIEL
- 2 EVO
- 3 STADTWERKE INGOLSTADT
- 4 Köthen Energie
- 5 STADTWERKE SINSHHEIM
- 6 STADTWERKE BUCHEN
- 7 STADTWERKE WALLDORF GMBH  
Energie · Wasser · Bäderpark
- 8 STADTWERKE SCHWETZINGEN

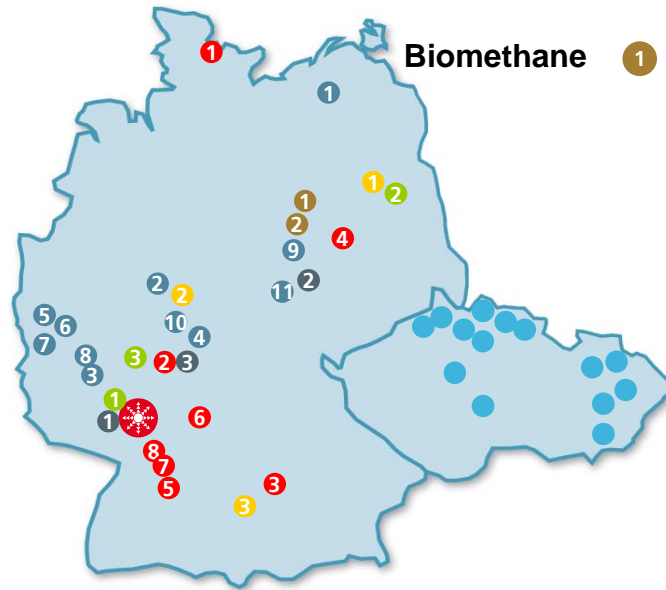
## MVV Energie – Renewable Energies

### Wind farms

- 1 Plauerhagen
- 2 Massenhausen
- 3 Kirchberg
- 4 Dirlammen
- 5 Güsten
- 6 Bergheim
- 7 Jülicher Börde
- 8 Wirfus
- 9 Holdenstedt-Bornstedt
- 10 Rabenau
- 11 Rastenberg I+II

### Biomethane

- 1 Klein Wanzleben
- 2 Kroppenstedt<sup>1</sup>



## MVV Energie CZ

- 14 locations for district heating supply

## MVV Energie Enamic

- 1 Berlin
- 2 Korbach
- 3 Gersthofen

## MVV Energie Umwelt

### Biomass power plant

- 1 Mannheim
- 2 Königs Wusterhausen
- 3 Wicker
- 4 Ridham Dock<sup>1</sup>

### Waste utilisation

- 1 Mannheim
- 2 TREA Leuna
- 3 Offenbach
- 4 Plymouth<sup>1</sup>

1 under construction

# We are making good progress with implementing our growth targets – Examples of projects implemented since MVV 2020



**Successful entry into UK market**



**Development of wind power portfolio**



**Entry into biomethane business**



**Expansion in district heating Block 9 GKM**



**Expansion of district heating in Czech Republic**



**Joint district heating project in Ingolstadt**



**Expansion in energy efficiency and contracting**

# Kirchberg wind farm – successful expansion of wind energy in 2011/12 financial year



## Kirchberg location in Rhineland-Palatinate

- ▶ **Launch of operations:** successively from December 2011
- ▶ **Investment:** Euro 84 million
- ▶ Joint venture with juwi
- ▶ 23 E-82 E2 type wind turbines (Enercon)
- ▶ **Hub height:** 138 metres
- ▶ **Output:** 53 MW<sub>e</sub>
- ▶ **Electricity output:** 125 kWh million p.a. (equivalent to consumption of 35,000 households)
- ▶ **CO<sub>2</sub> reduction:** 100,000 tonnes a year

# Launch of biomethane business at Klein Wanzleben location

## Biomethane plant at Klein Wanzleben location

- ▶ **Launch of construction work:** end of May 2011
- ▶ **Launch of operations:** September 2012
- ▶ **Investment:** Euro 12.6 million (of which MVV Energie: Euro 9.4 million)
- ▶ **Biogas production:** 63 million kWh p.a.
- ▶ **Raw materials requirement:** approx. 47,500 tonnes p.a. of maize silage, 2,500 tonnes p.a. of sugar beet plus 10,000 tonnes p.a. of sugar beet chips for process heat production (own consumption)
- ▶ **Planned operating term:** at least 20 years



# Decentralised energy supply – EVO wood pellet plant in Offenbach

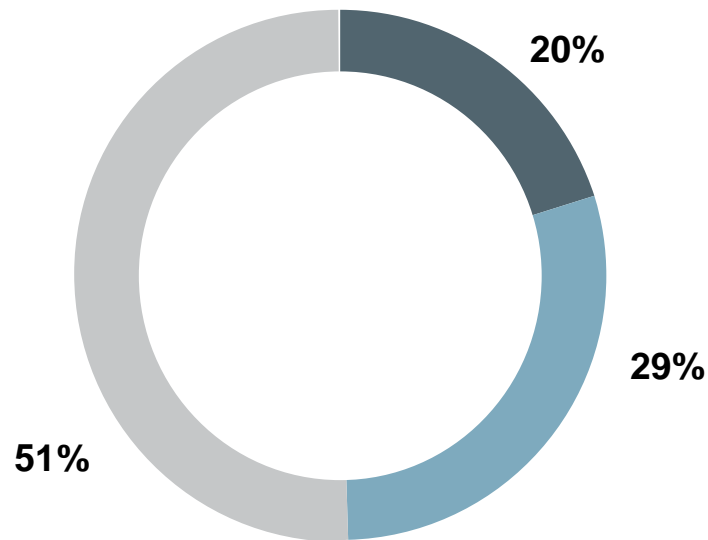


## Wood pellet plant in Offenbach

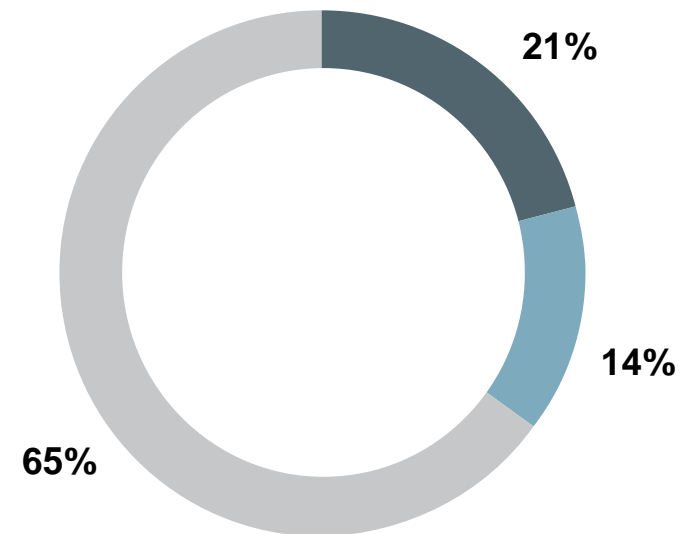
- ▶ **Launch of operations:** May 2011
- ▶ **Investment in wood pellet plant, including adjacent biomass cogeneration plant:**  
approx. Euro 17 million
- ▶ Wood pellet production from shavings and waste timber: initially 65,000 tonnes p.a.
- ▶ Possibility of doubling wood pellet production in further expansion stage
- ▶ Substitute fuel for up to 50,000 tonnes of hard coal at EVO's cogeneration plant
- ▶ **CO<sub>2</sub> reduction:** up to 80,000 tonnes p.a.

# High priority for renewable energies at MVV Energie Group

Electricity generation of the MVV Energie Group  
in Germany in FY 2011/12: 3.5 bn kWh



Net electricity generation  
in Germany in 2011: 579 bn kWh



- Electricity from renewable energies, including biomass cogeneration and biogenic share of waste
- Electricity from cogeneration
- Other electricity generation

Sources: Association of the German Energy and Water Industries (BDEW), Berliner Energieagentur GmbH, Prognos AG, Federal Environment Agency (Umweltbundesamt) and own calculations (preliminary)

# Implementation: Successful expansion of district heating – Ingolstadt



## Ingolstadt joint district heating project

- ▶ **Launch of operations:** summer 2011
- ▶ Bavaria's largest waste heat and district heating project
- ▶ **Investment:** around Euro 23 million
- ▶ Joint project with Petroplus refinery, City of Ingolstadt and AUDI AG
- ▶ Construction of a 5.3 km district heating pipeline
- ▶ **Thermal energy output:** 300 million kWh p.a.

# Enhanced energy efficiency and contracting – Tübingen University Hospital

## Tübingen University Hospital

- ▶ **Assumption of operations:** July 2010
- ▶ Conversion of 40 year-old heat power plant from oil and gas to wood pellet operations
- ▶ **Launch of operations:** March 2013
- ▶ **Investments:** Euro 12 million
- ▶ **Contractual term:** 20 years

### Technical data

- ▶ **2 wood boilers:** each 10 MW<sub>t</sub>
- ▶ **Peak load boiler:** 17 MW<sub>t</sub> + reserve boiler 32 MW<sub>t</sub>
- ▶ **CO<sub>2</sub> reduction:** 20,000 tonnes a year, or up to 98%





# TERMIZO – Heating energy from waste

## TERMIZO in the Czech Republic

- ▶ TERMIZO is a waste-fired heating energy plant that meets the highest European standards
- ▶ **Purchase price:** approx. Euro 21 million
- ▶ All of the heating energy produced is supplied to Teplarna Liberec
- ▶ Single-line plant concept with modern flue gas cleaning



## Technical data

- ▶ **Thermal energy output:** 38.3 MW<sub>t</sub>
- ▶ **Electricity generation:** 4.0 MW<sub>e</sub>
- ▶ **Waste incineration capacity:** 106,000 tonnes p.a.

# Grosskraftwerk Mannheim (GKM)

## Grosskraftwerk Mannheim (GKM)

- ▶ **Launch of operations** at Block 9: 2015
- ▶ **Shareholder structure** in GKM: 28% MVV Energie, 40% RWE, 32% EnBW
- ▶ **Gross electricity generation capacity** at GKM: 1,675 MW<sub>el</sub>
- ▶ **Gross electricity generation capacity** at new Block 9: 911 MW<sub>e</sub>
- ▶ **Efficiency ratio** of new Block 9: 70%
- ▶ District heating supply secure, as Blocks 3 and 4 to remain in operation until Block 9 is online
- ▶ Immission protection approval to use Block 3 as “**cold reserve**” in winter months



# Plymouth energy from waste plant project: MVV Energie has started the construction work

## South West Devon Waste Partnership



### Investment and financing

- ▶ **Investment:** approx. Euro 250 million
- ▶ **Financing:** secured with KfW IPEX, Svenska Handelsbanken and EIB
- ▶ **Start of main construction work:** August 2012
- ▶ **Launch of operations:** from 2014

### Technical data

- ▶ **Thermal use of waste volume:** 245,000 tonnes p.a.
- ▶ **Net electricity output:** 22.5 MW<sub>e</sub>
- ▶ **Max. thermal energy output:** 23.3 MW<sub>t</sub>

### Broad and secure revenue base

- ▶ Municipal waste contract: 25-year term, 75% bring-or-pay
- ▶ Energy supply contract with a 25-year term to supply electricity and steam to navy base
- ▶ Government support for cogeneration and generation of renewable energy from biogenic share of waste

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# CONTACT

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