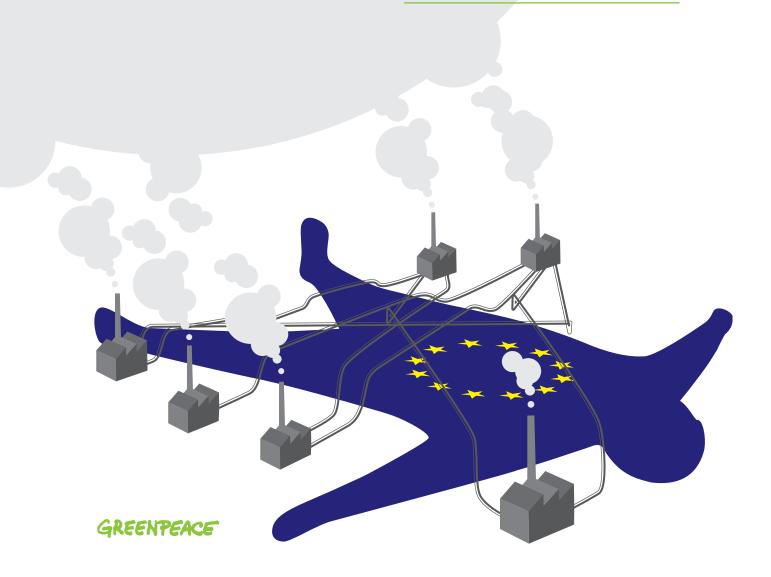
# TIED DOMN

Why Europe's energy giants want to keep us hooked on imported fossil fuel



## REPORT SUMMARY

The current Ukraine crisis highlights Europe's dependence on fossil fuel imports, in particular on gas from Russia.

This reliance ties Europe's hands. It mutes Europe's diplomatic response to the crisis and the financial cost is crippling. Every year, the EU spends more than €400 billion buying more than half of its energy (53 per cent) from abroad.

#### REPORT FINDINGS

This report found that one third of the revenue of the EU's eight biggest power companies comes from gas and coal imported from countries outside the European Economic Area (EEA)<sup>1</sup>. These companies' business therefore relies heavily on maintaining Europe's dependency on inherently unstable 'rentier' states, exposing Europe to geopolitical threats.<sup>2</sup>

The three utilities making the most revenues from these gas and coal imports are German company E.ON, French company GDF Suez and Italian company ENEL. Spanish company Gas Natural Fenosa, together with ENEL, relies for more than 60 per cent of its revenue on imports.

The report builds on a previous Greenpeace

report<sup>3</sup> which detailed how the business models of Europe's largest energy companies are unsustainable.

Europe's biggest power companies are putting pressure on EU politicians to weaken future commitments to cut carbon emissions and boost renewables and energy efficiency. Ambitious, binding targets in these three areas would help Europe tackle the global threat of climate change, while slashing its dependence on imported fuels.

#### FAILING BUSINESS MODELS

While smaller energy companies, local authorities and private citizens quickly recognised the promise of the renewables and efficiency market in Europe, big companies failed to sufficiently diversify their energy portfolios and as a result overly invested in fossil fuels.

Peter Terium, CEO of German energy utility RWE admitted the near defeat of their business models at a press conference in October 2013: "Economic stagnation, energy efficiency improvements and renewable energy are making conventional capacities increasingly unprofitable".

In a desperate move, many of these market competitors joined forces to increase their lobby clout and convince European leaders to keep their faith in their weak businesses models in the face

The European Economic Area (EEA) unites the 28 EU countries and Norway, Lichtenstein and Iceland into an Internal Market governed by the same basic rules.

<sup>2</sup> The Hague Centre for Strategic Studies (2014), Time To Wake Up: The Geopolitics of EU 2030; Climate and Energy Policies, http://www.hcss.nl/

<sup>3</sup> Greenpeace (2014), Locked in the past: why Europe's big energy companies fear change, http://bit.ly/1pCj9F8

of energy security challenges. As the so-called Magritte Group – a self-named collection of some of the EU's largest energy companies – they have enjoyed remarkable access to European Commissioners, MEPs and heads of government, which they used to lobby against progressive energy policies.

#### NEXT STEPS

At their 23-24 October 2014 summit, Europe's leaders are due to agree energy and climate targets for 2030, and set the policy direction for decades to come. With the threat of Russian gas cuts looming, they will also consider measures to strengthen European energy security.

Greenpeace is calling on Europe's politicians to implement targets for 2030 that include a 45 per cent share of renewables, 40 per cent energy savings (compared to 2005) and a 55 per cent cut in domestic carbon emissions (compared to 1990). This would massively reduce the need for gas and oil imports while coal imports would cease altogether before the end of the next decade.

Those targets would safeguard Europe's energy future.

The choice is clear: the only secure energy is clean energy. Greenpeace's recent report Roadmap for Europe<sup>4</sup> shows how this can be achieved.

4 Greenpeace (2014), Roadmap for Europe. Towards a sustainable and independent energy supply, http://bit.ly/1uVkVE7

#### NOTE ON DATA

Many of the details of European utilities' operations, particularly fuel sources, are confidential. For this study, Greenpeace Spain has relied on companies' own reports, research by consultancy company Enerdata and own analysis. The analysis has been carried out for the year 2011, because this is the latest year for which a consistent dataset of official energy statistics, Enerdata research and company data could be obtained. For companies' coal and gas purchase portfolios, the latest information published by the utilities, if any, was used regardless of the year. Greenpeace has made every effort to present the best possible estimates, but given the companies' lack of transparency, inaccuracies are always possible.

## ENERGY DEPENDENCY

As the conflict with Russia deepened, EU leaders asked the Commission in March 2014 to develop "a comprehensive plan for the reduction of EU energy dependence".<sup>5</sup>

Meanwhile, the Commission's own research shows that EU countries can significantly reduce energy imports from Russia and other sources if they take steps to save energy and shift to greater shares of renewables.

This can also reduce the environmental harm done by Europe's energy system – reducing greenhouse gas (GHG) emissions, air and water pollution.

Europe has already chosen that path. Thanks to target-led policies, the European Union's energy demand will decline by almost 20 per cent and renewables provide more than 20 per cent of its energy by 2020.

In October 2014, European leaders will decide which targets to set for 2030 to foster Europe's

5 European Council 20/21 March 2014, Conclusions, http://bit.ly/1d7MIR5 energy transition away from dirty, expensive imports to clean and secure home-grown energy. Under a European Commission proposal of July 2014 for a 40 per cent greenhouse gas reduction compared to 1990, a 27 per cent share of renewable energy and a 30 per cent reduction of energy consumption by 2030, Europe can cut its energy imports by 18 per cent (and gas imports by 22 per cent). More ambitious targets can reduce overall imports even more, according to the Commission's studies.<sup>6</sup>

Many businesses and NGOs are in favour of continuing the triple target approach. They are joined by the European Parliament and at least seven governments. Germany, Denmark, Belgium, Greece, Ireland, Portugal and Luxembourg are all calling for three ambitious targets.

Even though the dependency on dirty fuel imports is a major economic and environmental burden for

4

<sup>6</sup> European Commission, Impact Assessment accompanying the Communication on Energy Efficiency and its contribution to energy security and the 2030 Framework for climate and energy policy, http://bit.ly/1tpShYQ

## VESTED INTERESTS

Europeans, companies who mostly rely on fossil fuel and nuclear power generation, as well as gas sales, don't want to change.

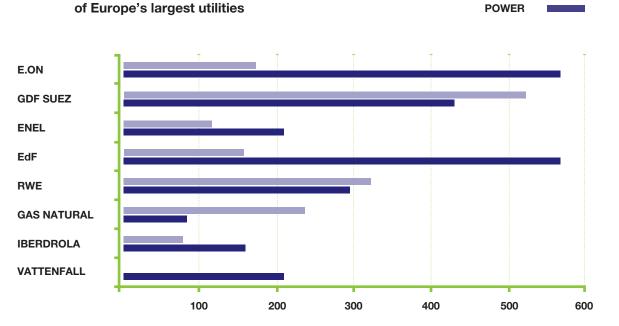
Europe's biggest power companies, including EDF, E.ON, GDP Suez, RWE, ENEL, Vattenfall, Iberdrola and Gas Natural Fenosa, have all been trying to derail a new set of climate and energy targets. They say that Europe's climate and energy policy is deeply flawed and argue for a single greenhouse gas reduction target for 2030, and no further targets for renewable energy and energy savings.

As demand flattens and renewable power generation increases, these companies are seeing their earnings, credit ratings and profits fall and their shares underperform. As an earlier Greenpeace report<sup>7</sup> shows, the large utilities have added to their own woes by failing to adapt to policy changes such as deregulation, nuclear phase-outs, transitioning to renewable energy and stricter regulation of air pollution and carbon emissions.

Chart 1 shows the biggest companies' recent<sup>8</sup> sales of power and gas in Europe. Jointly, Europe's eight biggest power companies control about half of Europe's electricity market, and one third of the

- 7 Greenpeace (2014), Locked in the past: why Europe's big energy companies fear change, http://bit.ly/1pCj9F8
- 8 This report has used the most recent data available from the Enerdata Energy Utilities Watch database. For EDF this is from 2012 and for all other utilities from 2011.

GAS



#### Chart 1 | Gas and power sales of Europe's largest utilities



120

100

80

60

40

20

0

E.ON

GDF SUEZ

ENEL

EdF

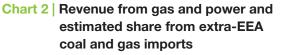
**BILLION EUROS** 

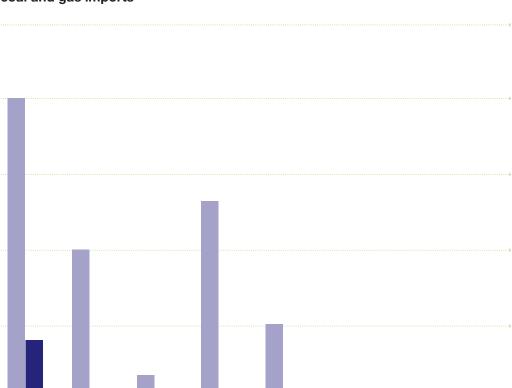
gas market. However, only 13 per cent of their electricity comes from renewable energy sources compared to 33 per cent for the rest of Europe's power generation (2012).

In 2011, the companies generated an estimated  $\in$ 342 billion in revenue from European sales of gas and power, of which an estimated 59 billion is profit before tax (EBITDA, Earnings before Interests, Taxes, Depreciation and Amortisation). About one third of this, or  $\in$ 116 billion in revenue, was generated on the basis of gas and coal imported from outside of the European Economic Area (EEA).

The three utilities who make their most revenue from imported gas and coal are E.ON, GDF Suez, and ENEL. The numbers are staggering and explain their desire for status quo. E.ON is estimated to have made an incredible €36 billion in revenue from these imports in 2011; GDF Suez made an estimated €23 billion; and ENEL €18 billion.

Of E.ON's overall revenue from electricity and gas sales, we estimate that 36 per cent was related to imports in 2011. For GDF Suez and ENEL, 37 and 67 per cent of their respective revenue came from imports. The revenue of Gas Natural Fenosa was almost totally dependent on imports: approximately 85 per cent of its revenue from electricity and gas sales came from imports of coal and gas in 2011 (Chart 2).





TOTAL REVENUE

ESTIMATED REVENUE FROM IMPORTS

GAS NATURAL

RWE

# SOURCE | ENERDATA AND EUROSTAT

IBERDROLA VATTENFALL



Chart 3 shows the big utilities' overall gas and coal consumption and share of imports from outside the EU and Norway.

Looking at gas sourcing, ENEL, Gas Natural Fenosa, EDF and Iberdrola all source over 75 per cent of their consumption from outside the EU and Norway. This is considerably more than the EU's average dependency on extra-EEA imports of around 45 per cent.<sup>9</sup>

Russia is the biggest supplier for E.ON, GDF Suez and RWE while ENEL and Gas Natural Fenosa rely most heavily on Algeria.

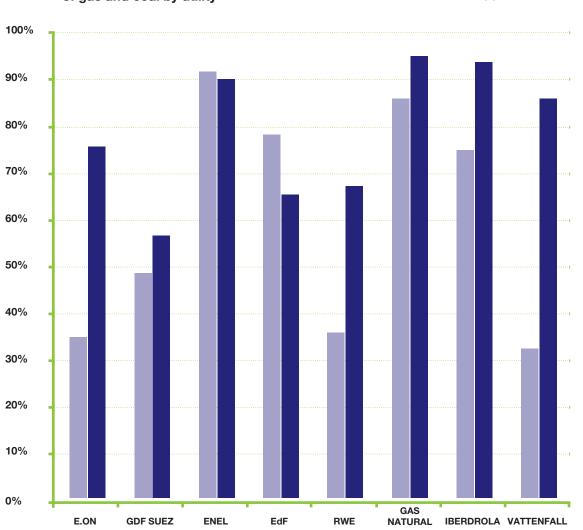
9 European Commission (2014), European Energy Security Strategy, http://ec.europa.eu/energy/security\_of\_supply\_en.htm On coal imports, the majority of the companies source 50 per cent or more from countries outside the EEA, mostly from Russia, Colombia, U.S., South Africa and Indonesia.

Ninety per cent or more of the coal that Gas Natural Fenosa, Iberdrola and ENEL import is from outside the European Economic Area. Again, this is much more than the European Union's average 63 per cent import dependency.<sup>10</sup>

10 European Commission (2014), European Energy Security Strategy, http://ec.europa.eu/energy/security\_of\_supply\_en.htm

GAS

COAL

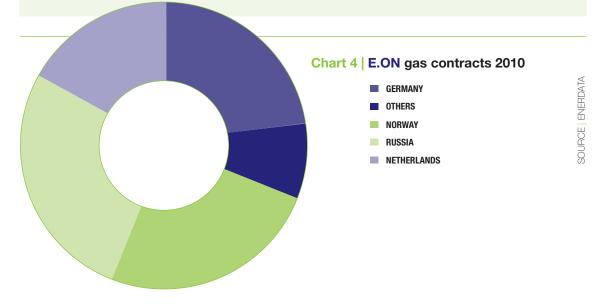


#### Chart 3 | Extra-EEA imports of gas and coal by utility

## THE PLAYERS

#### E.ON

E.ON made €2 billion in gross profit (EBITDA, Earnings before Interests, Taxes, Depreciation and Amortisation) from its gas business in 2010, and more than a quarter of its gas came from Russia. The company made a further €1.7 billion on their fossil generation where hard coal and gas represent 90 per cent of generating capacity. Approximately 70 per cent of gas and 80 per cent of hard coal used in Germany is imported from outside of Europe. Along with Germany's BASF and Gazprom, E.ON is also a partner in Yuzhno Russkoye in Siberia, one of the world's largest gas fields. The company holds a 15.5 per cent stake in the Nord Stream pipeline that was built to bypass Ukraine.

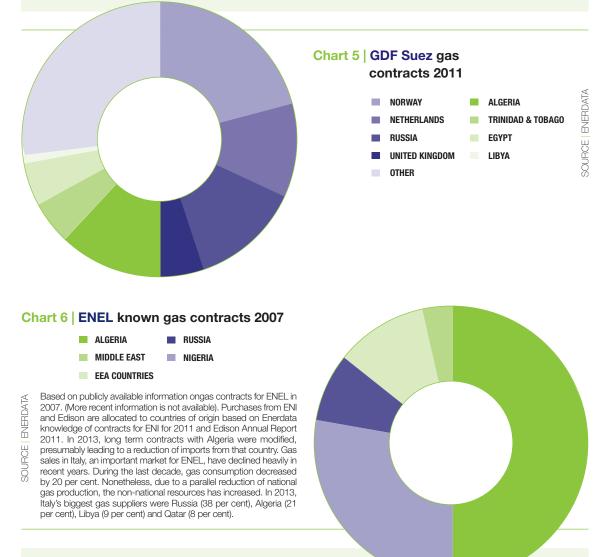


#### **IBERDROLA**

Iberdrola imports 94 per cent of its European coal and sells it in Spain and the UK (as Scottish Power), allowing it to sell 159 TWh of power in 2011. Both countries are reliant on foreign imports for the majority of the coal they consume: the UK is 65 per cent, and Spain 95 per cent dependent on foreign coal.

#### **GDF SUEZ**

The GDF Suez group made a gross profit (EBITDA, Earnings before Interests, Taxes, Depreciation and Amortisation) of over one billion euros selling gas and power in 2010 in France alone, an extraordinary increase on the 2009 gross profit of 280 per cent. Eighty-four per cent of the gas consumed in France is imported from outside the EEA, 66 per cent of the coal and 100 per cent of the uranium.



#### ENEL

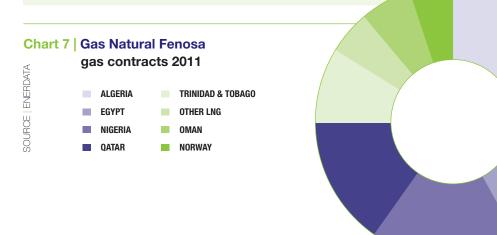
ENEL is estimated to import more than 90 per cent of the gas it supplies, and to source approximately 45 per cent of that from Algeria.<sup>1</sup> (In 2013, long term contracts with Algeria were modified, leading presumably to a significant reduction of imports from that country.) ENEL sells the gas on in Italy, Spain and Portugal, which have the highest gas dependence on Algeria of any country in the EU: 31 per cent, 42 per cent and 49 per cent of their total gas consumption, respectively.

1 Gas contract figures are from 2007, the most recent year available.

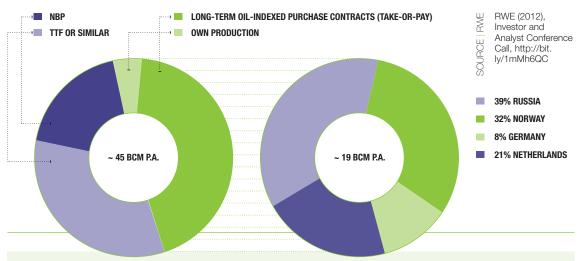
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#### GAS NATURAL FENOSA

Gas Natural Fenosa made an incredible 50 per cent profit (EBIT, Earnings Before Interest and Taxes) from its gas sales in Spain, or a total of €6 billion. The company sources its gas from Oman, Egypt and Algeria according to their CSR report, with Algeria being the main supplier. An estimated 85 per cent of gas sold in Spain is imported from outside Europe.



#### Chart 8 | RWE gas contracts 2012



#### RWE

RWE makes approximately 4 billion in revenue at a 25 per cent profit margin selling gas in Czech Republic and Slovakia, both of which are almost 100 per cent dependent on Russian gas. Forty one per cent of the company's power generation in 2013 was based on hard coal and gas. It imported two thirds of its hard coal from outside of Europe, with 28 per cent of imports coming from Russia. Thirty nine per cent of the company's contracted gas supply is from Russia (Gazprom).

## POLITICAL LOBBYING - LOCKING EUROPE INTO DEPENDENCY

As their business model is coming under pressure, Europe's big utilities are reaching out to governments for help. Six of these eight companies are part of the so-called Magritte Group of CEOs set up in by Gérard Mestrallet, CEO of GDF Suez, in May 2013. The Magritte Group is conducting a pan-continental campaign to radically change EU energy policy to suit its own, narrow interests.

#### MAGRITTE GROUP

So-named for its first meeting in the Brussels museum of surrealist artist René Magritte in May 2013, the group is led by GDF Suez, the French utility that sponsors the museum. The initial group had eight members: E.ON and RWE from Germany, Iberdrola and Gas Natural Fenosa from Spain, ENEL and ENI of Italy and Gas-Terra of the Netherlands. The group expanded with the addition of Swedish utility Vattenfall in September 2013, Czech utility ČEZ in October 2013, and Austrian OMV and Finnish Fortum by December 2013, taking it to a peak membership of twelve. Since then the Group appears to have unravelled with the exit of Vattenfall in early 2014, and most recently with the withdrawal of OMV.

For more than a year, the Magritte Group engaged in intense lobbying efforts, conducting meetings with members of the European Commission, European Parliament and heads of national governments to push their agenda.

By October 2013 the CEOs met French President François Hollande. They then met Dutch Prime Minister Mark Rutte (November 2013), German Chancellor Angela Merkel (February 2014) and Czech Prime Minister Bohuslav Sobotka (April 2014). They were part of high level meetings with senior MEPs and Energy Commissioner Oettinger.

France's EDF never joined the group, although its lobbying of politicians has been largely consistent with that of the Magritte Group. These companies are asking governments to drop any policies that promote renewable energy and energy savings. In a letter sent on 21 January, one day before the publication of the 2030 proposals, the Magritte Group urged the Commission to "... base the upcoming 2030 strategy on a single binding greenhouse gas reduction target (and no binding target for renewables in 2030 at EU and/ or national levels)."

"By giving priority to a carbon signal through such a CO2 target, there will be no need to bring forward targets for particular technologies or means to decarbonise (like RES or Energy Efficiency)." EDF's position on climate and energy framework for 2030, July 2013

The companies also want governments to cut back financial support for renewable energy like offshore wind and solar power, though it is provided simply to level the playing field with dirty energy. "We are asking to stop or to reduce dramatically the subsidies to renewables and to concentrate the subsidies on research and development," said Gérard Mestrallet, CEO of GDF Suez at a press conference on 11 October 2013.<sup>11</sup>

E.ON's Johannes Teyssen complained: "renewable subsidies are reaching a level that is totally unbearable", while ENEL CEO Fulvio Conti spoke of the "insanity of subsidies given to renewables".<sup>12</sup>

"The same insanity of having incentives given to renewables is in Spain, is in Germany, is in Italy and the end result of that is that Germans are paying €20bn more of the energy while the companies are shutting down plants. Is that logic? Is that what we want in Europe? This is a recipe for disaster." Fulvio Conti, CEO of ENEL, 11 October 2013

These sensational and alarmist claims ignore the fact that about €30bn are given to renewables every year in Europe while an estimated €61bn are

paid in nuclear and fossil fuel subsidies.<sup>13</sup> Experience shows that support for renewable energy has helped to significantly reduce technology costs, bring down wholesale electricity prices and reduce countries' fuel import bills.<sup>14</sup>

The big utilities are not against government subsidies, they just want them for themselves. They are demanding new subsidies for their own failing businesses so they can keep gas- and coal-fired plants operational that would otherwise be uneconomic. They pretend that such 'capacity payments' for fossil and nuclear plants are needed to secure power supply for European customers. Some CEOs effectively evoked the sceptre of blackouts if such payments are not given.

"The risk of black-out has never been so high so we think something should be done in the short term in terms of capacity payments." Gérard Mestrallet, CEO of GDF Suez, 11 October 2013

They want to make us believe it is Europe, not their own business, that is at stake:

"If you go for a renewable society without the security of supply then we are going to have a problem. Not we as RWE, not we as sector but we as Europe. Then the system is going to fail. That is what the SOS sign of today is about, it's about the failure of the system as whole." Peter Terium, CEO of RWE, 11 October 2013

<sup>11</sup> GDF Suez, 10 CEOs push for EU energy policy to change direction, press conference, http://www.youtube.com/ watch?v=6uDlGht1klw

<sup>13</sup> CAN Europe (2012), Commissioner Oettinger censors Commission documents to support the fossil fuel industry, http://bit.ly/ZGfygE

<sup>14</sup> Haas et al. (2011), Efficiency and effectiveness of promotion systems for electricity generation from renewable energy sources – Lessons from EU countries. Energy 36(4):2186–2193. http://bit.ly/1qt1P1Y; Mitchell et al (2011), Policy, Financing and Implementation. In IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation, http://bit.ly/1r7T0AT; Fraunhofer ISI et al (2012), Monitoring of the Cost and Benefit Impacts of the Expansion of Renewable Energy in the Electricity and Heat Sectors in 2011, http://bit.ly/1B5O67A



In a reversal of the facts, their scaremongering goes as far as saying only import-dependent gas and coal plants can secure a stable power supply. RWE's Peter Terium said: "many gas and coal-fired power stations are not profitable anymore, but these are the only sources that can ensure security of supply".<sup>15</sup>

During the Ukraine crisis, the same companies have sought to reassure governments that Russian gas supplies are secure, and that Europe's dependency on Russian imports is not a problem. Gérard Mestrallet, CEO of GDF Suez has repeatedly pointed out that it was not in Russia's interest to enforce a prolonged shutoff.<sup>16</sup> Johannes Teyssen, CEO of E.ON is equally dismissive.

- 15 Energy post (April 2014), The vision of Peter Terium, CEO of RWE: "We want to be the holistic energy manager of the future", http://bit.ly/1Caxi1r
- 16 AFP (August 2014), Russian gas cut to Ukraine unlikely to hurt Europe: analysts, http://yhoo.it/1yoU1bl

"... I am tired of this eternal prattling on about dependency. One could also describe a marriage as dependency if one were feeling spiteful. But one could also see it as a partnership. Europe and Russia have built up an energy partnership over the course of four decades and over that entire period, there hasn't been a single day on which natural gas was used as a strategic weapon against the West." Johannes Teyssen, CEO of E.ON, March 2014<sup>17</sup>

The Magritte Group's motive is clear: overly invested in fossil fuels, and lacking renewable assets, these big energy dinosaurs want to lock Europe into a continuation of dependence on imported fossil fuels.

17 Spiegel Online International (March 2014), 'No reason for concern': energy exec says Ukraine crisis not bad for business, http://bit.ly/1mkk8K3

## AMBITIOUS 2030 TARGETS ARE ESSENTIAL

This retrograde crusade has been carefully timed, for Europe is at a critical juncture.

Discussions over the 2030 EU climate and energy targets are underway, and will determine the European energy scenario until the middle of the century. Fixing a package that has binding and ambitious targets for renewables and energy efficiency will have far-reaching benefits for energy security, carbon emissions and employment creation in Europe until the middle of the century.

#### **GREENPEACE PROPOSAL**

Research carried out for Greenpeace by DLR, the German Institute of Technical Thermodynamics, shows that clean and secure energy are two sides of the same coin. A stringent set of policy targets for 2030 will deliver on both objectives – reducing the risk of energy supply shortages and reducing the risk posed by global climate change.

The report 'Roadmap for Europe: towards a sustainable and independent energy supply'<sup>18</sup> shows that, based on the 2030 targets proposed by the Commission in January, even if the European Union exploits all of its own conventional gas, oil and hard coal, it would still have to import a total of 29,000 petajoules (PJ) per year in fossil fuels by 2030. Specifically, it would need to import about 255 billion cubic metres (m3) of gas, 2.8 billion barrels (bbl) of oil and 81 million tonnes of hard coal. Overall, this

would result in a limited reduction in EU energy imports compared to today's levels.

By contrast, if EU leaders backed more ambitious 2030 targets, overall fossil fuel import requirements would be 45 per cent lower than under the Commission proposal. Specifically, annual imports of about 90 billion m3 of gas and 1.3 million bbl of oil could be avoided by 2030, while no imports of hard coal would be needed at all.

Compared to the Commission's January proposal, this represents an extra 35 per cent cut in gas imports and a 45 per cent cut in oil imports by 2030. The Energy [R]evolution pathway would also result in much higher carbon emission cuts by 2030 compared to the Commission proposal. The investments required in the power sector would be very similar to those under the Commission's proposal.

<sup>18</sup> Greenpeace (2014), Roadmap for Europe. Towards a sustainable and independent energy supply, http://bit.ly/1uVkVE7



Table 1 shows sales, revenue and EBITDA (Earnings before Interests, Taxes, Depreciation and Amortisation) figures for the eight biggest utilities, as well as calculated estimates of the share of gas

#### and coal imported from outside the EEA (European Economic Area), and the revenue generated by those imports.

### Table 1 | Overview of majorEuropean utilities

SOURCE | ENERDATA AND EUROSTAT Figures displayed are from most recent years available: 2012 for EDF and 2011 for all other utilities

	Sales, TWh		Revenue, MEUR			EBITDA, MEUR			Imports		Generation		Estimated rev- enues based on imported coal&gas	
Company	Gas	Power	Gas	Power	Gas &Power	Gas	Power	Gas &Power	Gas	Coal	From gas	From hard coal	Share	Revenue, BEUR
E.ON	173	567	61,362	39,344	100,706	4,408	5,378	9,786	35%	76%	38%	23%	36%	36
GDF Suez	523	431	n.r.	n.r.	60,158	n.r.	n.r.	10,344	49%	57%	35%	13%	37%	23
ENEL	116	210	10,297	16,784	27,081	n.r.	n.r.	2,743	92%	90%	26%	32%	67%	18
EdF	157	568.5	n.r.	n.r.	72,729	n.r.	n.r.	16,084	78%	65%	7%	9%	21%	15
RWE	322	295	1,766	1,166	40,467	n.r.	n.r.	8,189	36%	67.2%	19%	23%	27%	11
Gas Natural	237	84	1,240	5,452	6,692	896	680	1,576	86%	95%	74%	8%	84%	6
Iberdrola	78	159	n.r.	n.r.	14,496	n.r.	n.r.	4,281	75%	94%	20%	15%	40%	6
Vattenfall	-	209	-	20,073	20,073	-	6,047	6,047	32%	86%	8%	12%	8%	2
Total	1,606	2,523		••••••	342,402			59,050					34%	117
EUR per EU citizen					681			118						231

#### CREDITS

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#### Disclaimer

This paper and the information contained herein is not investment advice. The purpose of this report is to highlight the risks posed by some utilities' business model because governments and other investors may want to have a better understanding of these risks.