

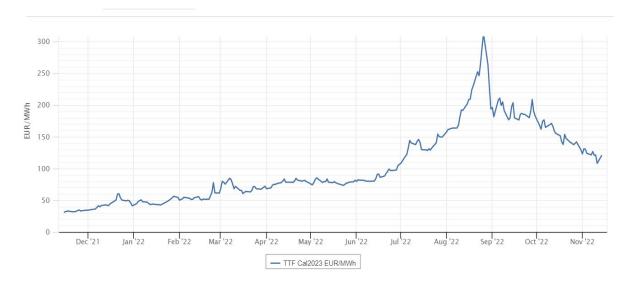
# **WDP Energy Purchases Report**

#### **Upfront:**

WDP appointed independent energy study firm Zero Emission Solutions (ZES) to provide support regarding its energy purchases. ZES and its team members have 20 years of experience in the field, assisting clients with a total energy procurement portfolio of some 5 billion kWh.

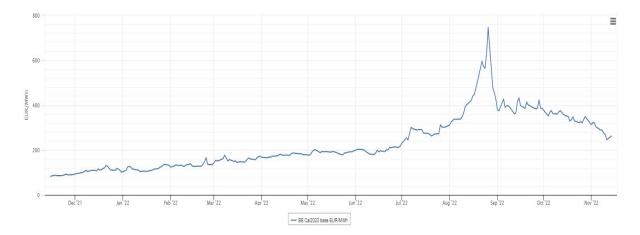
#### Context market situation:

The particularly low gas supplies leading up to winter 2021-2022, together with the impending conflict between Russia and Ukraine, with Europe also taking sanctions against Russia and finally imposing a semi-embargo on Russian gas, caused gas prices to explode from mid-2021. With a provisional record on 26/08/22. Since then, fortunately, prices have dropped relatively sharply (because they are still ten times what they were 2 years ago). This is because the prolonged high temperatures and shrinking economy led to a demand drop of about 20%. (See chart below, TTF gas price last year)



Electricity prices are very similar to gas prices because in most hours power is co-produced by gas power plants and the electricity price is always determined by the currently most expensive plant needed to keep the grid going. With France's nuclear power plants being out 'en masse' for the past year, gas power plants have to be used more than usual. (See chart below, Endex electricity price Belgium last year)





How energy prices will continue to evolve depends on many unpredictable factors, but if everything remains as it is now, it can be expected that prices will now stabilize until after the winter and then possibly fall again further. In any case, prices like in 2020 are very unlikely in the near future.

The market prices above provide "forward quotes," especially these for delivery in 2023. Both gas and electricity can be 'ordered' in advance to be delivered later (subsequent months, quarters or years). Suppliers allow larger consumers to 'hedge' their energy in this way. Accumulating WDP consumption normally leads to this benefit. Power or gas that is not hedged on those forward markets is purchased on the daily market, resulting in a different price for each hour of the day. At the end of the month, the average is then calculated relative to consumption that month. We call this an "indexed price."

However, due to the high volatility on the market and the enormous risks, suppliers have become much stricter about this hedging: either they no longer allow it, or it can only be done 'over the counter' (i.e. 'instant online') and the volume purchased in advance must actually be consumed on pain of a fine. Suppliers thus shift the risk to their customers. Some suppliers (Engie & Luminus) even implemented a temporary offer freeze (August to mid-September) because the risks remained too high. Consumers with irregular consumption or a lesser creditworthiness even found it difficult to get an offer at all. Some suppliers only offered to existing customers. And some suppliers went out of business.

#### Strategy followed:

In view of the above, and taking into account the WDP plan to install more heat pumps and equip buildings with solar energy and to start netting (= internal energy sharing), but noting that neither Fluvius nor the suppliers are really ready for this yet, it was decided to conclude a contract for 2023 only. WDP is counting on the situation calming down within the year and/or energy-sharing really being able to be applied then.

Tenders were requested from:

- Eneco, Engie, Luminus & Total for gas
- Eneco, Engie, Luminus, Total, BEE and Yuso for electricity.



There are obviously other suppliers, but some are limited to a specific operating area (e.g. Wase Wind is only active in the Waasland region) or to a certain category of customers (e.g. Axpo only supplies large industry, Mega only low-voltage customers).

Thus, for the reasons mentioned above, the request for offer was only for a 1-year contract, i.e., 2023, with the possibility of hedging (part of) the volume so that - when WDP sees the opportunity - the indexed rate can be clinched.

## Natural gas results:

For natural gas, only one offer was obtained, from Engie. The other suppliers reported being unable to offer at that time. The tariff in Engie's offer was - notwithstanding a different structure - almost identical to the current contract until the end of 2022. The difference was barely 0.6 €/MWh.

Leverancier ENGII Termijn 2021-					ENGIE 2023	
Vaste Vergoeding (€/jaar)	,	0,000		0,000		
Max Uurafname (m3/u/jaar)			0		0	
Prijsformule Energie		(3,58+(1)	*GasClick))	(0,29	+(1*TTF))	
Parameter a		3,580	•	0,290	. ,,	
Parameter b		1,000		1,000		
Parameter c		0,000		0,000		
Totaal Commodity Hedge (€/MWh	1)	117,200	2.209.332	113,910	2.147.312	
Prijsformule Energie		d+e*l	NDEX+f	g+h*l	ENDEX+i	
Parameter d		0,000		0,000		
Parameter e		0,000		0,000		
Parameter f		0,000		0,000		
Totaal Commodity Indexed(€/MW	h)	0,000	0	0,000	0	
	TOTAAL ENERGIE (€/MWh)	117,200	€ 2.209.332,04	113,910	€ 2.147.312,40	
			KATIE		KATIE	
Fixatiekosten (€/MWh)		0,080	1.508,08	0,000	0,00	
Fixatiekosten (€/fixatie)	TOTALL FIVATIONS	0.000	1 500	0.000		
	TOTAAL FIXATIE (€/MWh)	0,080	1.508	0,000	0	
		NET		NET		
Transportkosten Entry (€/MWh)		0,000	0	1,330	25.072	
Transportkosten Exit (€/MWh)		0,000	0	1,330	25.072	
Transportkosten Varia (€/MWh)		0,000	0	1,330	25.072	
Distributiekosten (€/MWh)		0,000	0	0,000	0	
	TOTAAL NET (€/MWh)	0,000	0	3,990	75.215	
Fodoralo Didrago Agradas (F/AMA)	lo)		KSEN		KSEN	
Federale Bijdrage Aardgas (€/MW FED 0 - 20 GWh	8851 100%	0,742 0.742	13.980	0,742 0,742	13.980	
FED 20 - 50 GWh	0 85%	0,742	0	0,630	0	
FED 50 - 250 GWh	0 80%	0,593	0	0,593	0	
FED 250 - 1000 GWh	0 75%	0,556	0	0,556	0	
FED 1000 + GWh	0 55%	0,408	0	0,408	0	
Totaal Federale Bijdrage Elektricite		0,742	13.980	0,742	13.980	
Energiebijdrage Elektriciteit (€/MWh)		0,992	18.693	0,992	18.693	
TOTAAL TAKSEN (€/MWh)		1,733	32.672	1,733	32.672	
	TOTAAL (€/MWh)	119,013	2.243.513	119,633	2.255.200	

However, the natural gas contract does not allow hedging. Engie - given the circumstances - did not wish to offer this. This means that the gas will be settled monthly based on the closing price of each day of the previous month.



Note: Calculations in the table above are based on energy prices of day of analysis. Meanwhile, these prices have fallen sharply.

### **Electricity results:**

For electricity, 2 bids were obtained, from Engie and Yuso.

Engie scored best. Both parties use the spot market price 'Epex' (also called 'day ahead' as the indexation parameter. Yuso adds a surcharge of 9 €/MWh, while Engie offers a 'discount' of 4.27 €/MWh. So both offers are perfectly objectively comparable.

FORMULA    NU:-0,24+1,220*PowerClick   SU:-4,27+1*eSpot   SU:-4,27+1*eSpot   Per uur + 9 EUR/MW     Market value (av. price 2022)   244,24   244,24   244,24     Price peak	Supplier	ENGIE - Huidig contract	ENGIE	Yuso
SU:-4,48+0,830*PowerClick   SU:-4,27+1*eSpot   per uur + 9 EUR/MW	Offer type	Floating ENDEX	Floating EPEX SPOT	Floating DAY AHEAD
Price peak         7         297,73         239,97         253,24           Price off-peak         198,24         239,97         253,24           Fixation fee/ Fixed Fee         0,29         0,00         0,00           Net losses peak         0,00         0,00         0,00           Net losses off-peak         0,00         0,00         0,00           GOO (if not included)         0,00         4,93         0,00           Subtotal av. commodity price [Euro/MWh]         249,34         239,97         253,24           GSC VL average price/MWh incl degr         11,95         12,07         12,07           WKC VL average price/MWh incl degr         1,80         1,86         36           GSC BXL average price/MWh incl degr         1,80         1,86         36           GSC WAL average price/MWh incl degr         0,00         0,00         0,00           Subtotal av. non commodity price [Euro/MWh]         13,75         13,87         13,93           Average total price [Euro/MWh]         263,09         253,84         267,17           Av. price incl. payment term [Euro/MWh]         263,09         253,84         267,17           Annual consumption peak         5583,96         5583,96         5583,96           Annu	FORMULA		•	Day Ahead referentieprijs per uur + 9 EUR/MWh
Price peak         29/,73         239,97         253,24           Price off-peak         198,24         239,97         253,24           Fixation fee/ Fixed Fee         0,29         0,00         0,00           Net losses peak         0,00         0,00         0,00           Net losses off-peak         0,00         0,00         0,00           GOO (if not included)         0,00         4,93         0,00           Subtotal av. commodity price [Euro/MWh]         249,34         239,97         253,24           GSC VL average price/MWh incl degr         11,95         12,07         12,07           WKC VL average price/MWh incl degr         1,80         1,86         1,86           GSC BXL average price/MWh incl degr         0,00         0,00         0,00           GSC WAL average price/MWh incl degr         0,00         0,00         0,00           GSC WAL average price/MWh incl degr         13,87         13,87         13,93           Average total price [Euro/MWh]         263,09         253,84         267,17           Av. price incl. payment term [Euro/MWh]         263,09         253,84         267,17           Annual consumption peak         5583,96         5583,96         5583,96           Annual consumption off-peak	Market value (av. price 2022)	244,24	244,24	244,24
GSC VL average price/MWh incl degr       11,95       12,07       12,07         WKC VL average price/MWh incl degr       1,80       1,86       1,86         GSC BXL average price/MWh incl degr       0,00       0,00       0,00         GSC WAL average price/MWh incl degr       0,00       0,00       0,00         Subtotal av. non commodity price [Euro/MWh]       13,75       13,87       13,93         Average total price [Euro/MWh]       263,09       253,84       267,17         Av. price incl. payment term [Euro/MWh]       263,09       253,84       267,17         Annual consumption peak       5583,96       5583,96       5583,96         Annual consumption off-peak       5349,05       5349,05       5349,05         Total annual consumption       10933,01       10933,01       10933,01	Price off-peak Fixation fee/ Fixed Fee Net losses peak Net losses off-peak	297,73 198,24 0,29 0,00 0,00	239,97 239,97 0,00 0,00 0,00	253,24 253,24 0,00 0,00 0,00
WKC VL average price/MWh incl degr       1,80       1,86         GSC BXL average price/MWh incl degr       0,00       0,00         GSC WAL average price/MWh incl degr       0,00       0,00         Subtotal av. non commodity price [Euro/MWh]       13,75       13,87       13,93         Average total price [Euro/MWh]       263,09       253,84       267,17         Av. price incl. payment term [Euro/MWh]       263,09       253,84       267,17         Annual consumption peak       5583,96       5583,96       5583,96         Annual consumption off-peak       5349,05       5349,05       5349,05         Total annual consumption       10933,01       10933,01       10933,01	Subtotal av. commodity price [Euro/MWh]	249,34	239,97	253,24
Average total price [Euro/MWh]         263,09         253,84         267,17           Av. price incl. payment term [Euro/MWh]         263,09         253,84         267,17           Annual consumption peak         5583,96         5583,96         5583,96           Annual consumption off-peak         5349,05         5349,05         5349,05           Total annual consumption         10933,01         10933,01         10933,01	WKC VL average price/MWh incl degr GSC BXL average price/MWh incl degr	·	1,80 0,00	1,86 0,00
Av. price incl. payment term [Euro/MWh]       263,09       253,84       267,17         Annual consumption peak       5583,96       5583,96       5583,96         Annual consumption off-peak       5349,05       5349,05       5349,05         Total annual consumption       10933,01       10933,01       10933,01	Subtotal av. non commodity price [Euro/MWh]	13,75	13,87	13,93
Annual consumption peak         5583,96         5583,96         5583,96           Annual consumption off-peak         5349,05         5349,05         5349,05           Total annual consumption         10933,01         10933,01         10933,01			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
Annual consumption off-peak         5349,05         5349,05         5349,05           Total annual consumption         10933,01         10933,01         10933,01	Av. price incl. payment term [Euro/MWh]	263,09	253,84	267,17
	·	· ·	•	·
Average annual costs [Euro] 2.876.382 2.775.233 2.921.015	-			

Engie's proposal was also much better in terms of formula than the current contract until the end of 2022. Consequently, all energy contracts could be awarded to Engie.

The electricity contract does not allow hedging either, for the same reasons as for natural gas: the market is too volatile and thus the risk for the supplier is too great. This means that electricity will be settled monthly based on the closing price of each day of the previous month.

Note: Calculations in the table above are based on energy prices of day of analysis. Meanwhile, these prices have fallen sharply.



#### How to estimate budget for energy?

Spot market prices (epex prices or day-ahead market prices) depend very much on the relationship between supply and demand. As a result, gas is considerably more expensive on the spot market during the winter than during the summer. The same is true for electricity, albeit to a lesser extent. The spot price for electricity will also vary significantly from hour to hour within the same day. See e.g. below the spot price for electricity for 16/11/22:



On average over a year, the cheapest hours are those between 2 and 5 am and between 12 and 4 pm. The latter thanks to solar energy and so that effect plays even more in summer than in winter. In the evening, around 6 p.m., the spot price is the most expensive, especially in cold weather. By using less power then (and shifting the consumption to the afternoon) considerable savings can be made.

On average over the years, spot prices are 10% cheaper than forward prices (e.g. the better known 1-endex-forward price on which fixed and click contracts are mainly based). As an example, the average spot price for October 2022 was 237.63 €/MWh. The forward price for that month was 263.97 €/MWh.

Given the new gas supply contract and considering the current market situation, we recommend assuming a cost price of 100 €/MWh for 2023. That is the current forward quote minus 10%. On top of that there are grid costs and taxes. Grid costs will rise by 2% in 2023 (already announced by VREG), while taxes will remain the same (preliminary estimate).

Given the new electricity supply contract and given the current market situation, we recommend assuming a cost price of 260 €/MWh for 2023. That is the current forward quote minus 10%. Depending on your consumption profile, this will be higher or lower as described above. On top of that there will be grid costs and taxes. Grid costs will rise by 2% in 2023 (already announced by VREG), taxes will remain the same (preliminary estimate).

Alex Polfliet

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