

The residents' presentation — the AI data centre in Domiechowice

What we already know, what we do not yet know, and what follows from it — every number with its source, every "we don't know" with a question number

Prepared by the residents, for the residents of Domiechowice

SEPTEMBER 2026

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Independent citizen analysis. Not commissioned by the gmina, the investor, or any pressure group. This presentation summarises edition 2.5.0 of the residents' analysis: every number comes from that analysis, with its source given there; the way each was computed is shown in the slide footnotes. The full documentation — the analysis, the 111-questions sheet and the fact-checking cards — is publicly available at domiechowice-dc.pages.dev.



What is going to be built here?

Legend: "We know" are facts from documents (with the source given); "We don't know" are questions the investor and the gmina have not yet answered — each with its number from the "111 questions" sheet.

On farmland in Domiechowice, by national road 74, an AI hyperscale data-centre campus is to be built — in practice: a factory of computing power for artificial intelligence, running around the clock, every day.

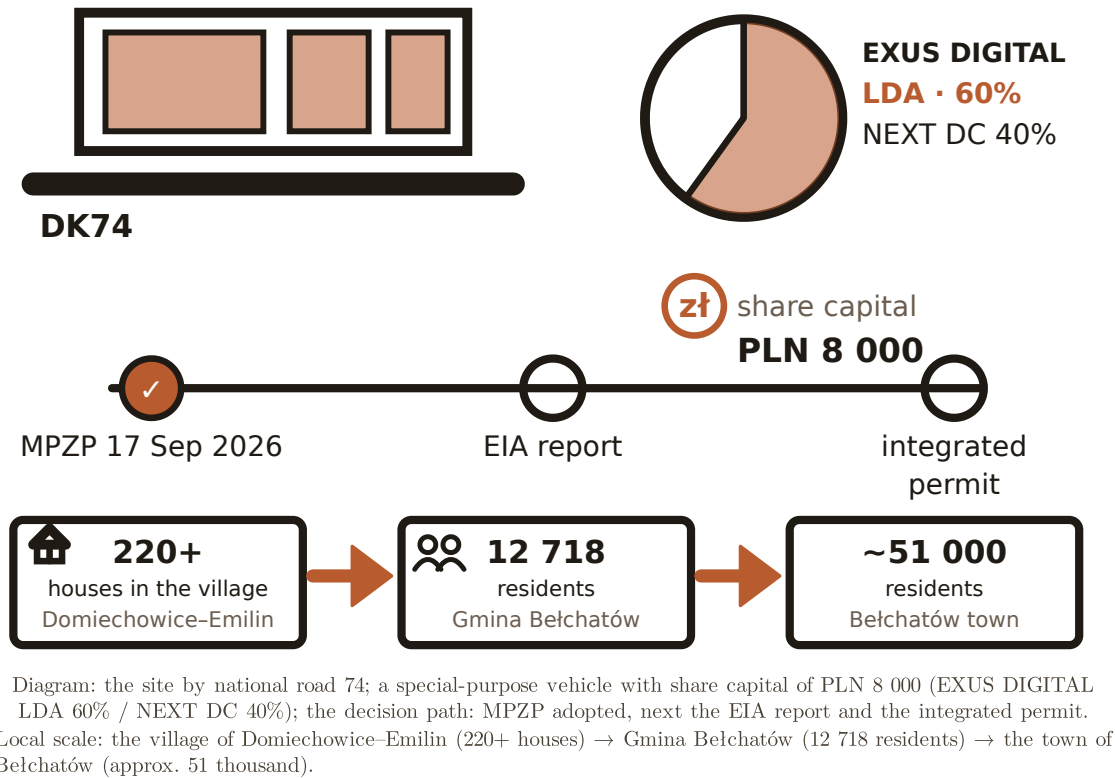
This presentation is not a plea of "don't build". Data centres are needed — the question is on what terms and with whom. Every "we don't know" below carries its question number; a complete set of answers is a green light.

We know:

- Stage 1 is **500 megawatts (MW)** with obtained grid connection conditions; ultimately about **1 GW in two stages of 500 MW**; the combined figure is a communicated goal, not an obtained connection. Site: about 50 hectares, formally **52.6016 ha in 71 cadastral plots**. (*Analysis What and where—Scale, §1.14.1*)
- The investor is a special-purpose vehicle, **DATA CENTER BEŁCHATÓW Sp. z o.o.**, with share capital of **PLN 8 000**; its shareholders are EXUS DIGITAL LDA (Portugal, 60%) and NEXT DC Sp. z o.o. (40%). (*Analysis §4.1.1*)
- The local spatial development plan (MPZP) was adopted on **17 September 2026** (11 votes in favour, 2 abstentions). (*Analysis §6.9.3*)
- The next stage is the environmental impact assessment (EIA) report: a full nature inventory, a noise model, a full water balance — and later, among other things, an integrated permit. (*Analysis §6.9.1, §6.3*)

We don't know:

- Who the first tenant will be and on what terms — and it is the tenant that decides the real scale and technology. — Question **Q5**
- What the schedule for construction and administrative decisions looks like. — Question **Q61**



This is not one topic — it is a set of disciplines

A data centre is not one matter but several separate engineering disciplines at once: **cooling, energy, water, waste heat, noise, backup power and the construction itself**. Each is a separate set of questions — with its own "we know / we don't know".

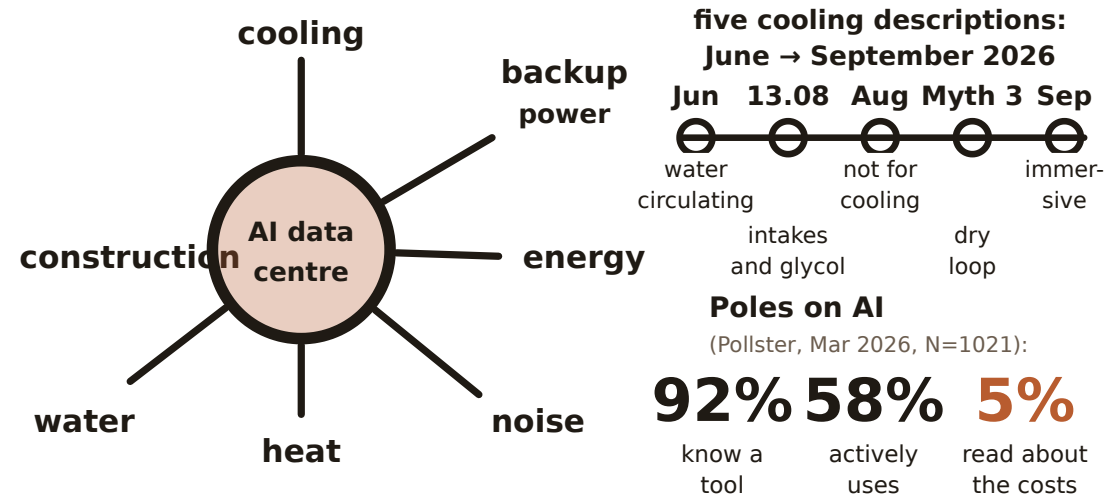
Why this matters. Within four months residents heard **five different descriptions of the same cooling installation**: water circulating with a rainwater tank (June), intakes and glycol (13.08), "water will not be used for cooling" (August), a hybrid dry loop ("Myth #3"), immersion cooling (September, the Emilin meeting). Two of these descriptions came on two consecutive days (23 and 24 August). If even the designer has not yet chosen the technology, no internet comment can settle this — documents must. (*Analysis §1.2.2*)

What Poles say about AI (Pollster survey, March 2026, N=1021):

- **92% know** at least one AI tool and **58% actively use** one — but only **5% often read or hear** about its environmental costs.
- **68% do not confirm contact** with the topic (50% "never heard of it" + 18% "cannot say whether they have encountered it") — this is not a dispute, it is an information vacuum.
- Average score on an AI knowledge test: **4.9 out of 15**; the most frequent answer: "don't know".

We know: which disciplines the project covers and what the documents say about them.

We don't know: which of the five cooling descriptions is the design one. — Questions **Q88, Q45**



A map of the disciplines around a data centre; five cooling descriptions in four months (June–September 2026); Poles on AI: 92% know a tool, 58% actively use one, 5% often read about the costs.



Energy — how much is 500 megawatts?

500 MW is **power drawn all at once** — not a day's consumption. The distinction matters: a home meter measures energy (kWh); here we are talking about how "thick" the supply line has to be.

We know:

- It is about **one tenth** of the installed capacity of Elektrownia Bełchatów (5 096.7 MW). Note: we are comparing a draw with generation, and the plant's units leave the system in 2030–2036. (*Analysis §1.9–§1.10*)
- It is **1.8%** of the record peak of the entire Polish system (27.7 GW, 3 February 2026). National scale, however, is not the same as the possibility of connecting locally — the real connection is settled by the connection conditions and the mandatory system-impact study. Once the coal units are retired (2030–2036), the question remains of what will supply this draw. (*Analysis §1.14.1, §1.14*)
- The household scale: at full load the centre's power is about **a quarter of a million kettles at once** — roughly 50 in every household of the gmina. And **one day of operation** uses as much energy as about **6 000 households use in a whole year** — more than all the gmina's households combined (approx. 4–5 thousand). (*at full IT load*)
- **Who pays for grid reinforcement:** the statutory mechanism is that the connection fee covers **¼ of the connection costs**, and the remaining **¾ is covered by the operator** — refinanced through distribution tariffs (art. 7(8) of the Energy Law). For scale: the capacity market in 2026 is about PLN 10 bn (URE: PLN 9.9 bn). (*Analysis §1.14.1*)

We don't know:

- Whether the full 500 MW was granted at once, or in stages. — Question **Q47**
- What capacity will serve this load after 2035, once the coal units are retired. — Question **Q51**

How this was computed: $5\,096.7 \div 500 \approx 10$; $500 \div 27\,700 \approx 1.8\%$; $500\,000\text{ kW} \div 2\text{ kW (a kettle)} = 250\,000$, and the gmina has approx. 4–5 thousand households ($12\,718\text{ residents} \div 2.5\text{--}3.0\text{ people per household}$); $500\text{ MW} \times 24\text{ h} = 12\text{ GWh a day} \div 2\,000\text{ kWh (a household's yearly electricity use, GUS)} = 6\,000$. Sources: *Analysis §1.9–§1.10, §1.14.1, GUS, PSE (record 27.7 GW — 3 February 2026).*

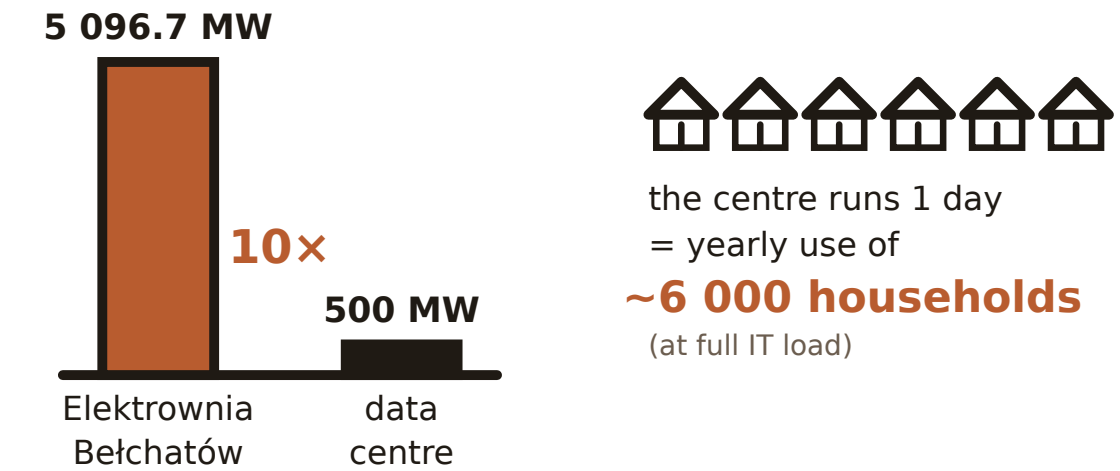


Chart: Elektrownia Bełchatów (5 096.7 MW) vs the data centre (500 MW) — a 10:1 ratio; one day of the centre's operation equals the yearly electricity use of about 6 000 households.



Water — from a claim to pools per day

We know:

- The investor's promise: **"approx. 50 cubic metres of water per day"** — the needs of 150–200 houses, i.e. less than the village of Domiechowice–Emilin (220+ houses $\approx$ 55–73 m³ per day). In bottles: about **33 thousand 1.5-litre bottles per day**. (*Analysis §1.4.1*)
- That number, however, is **"zero for cooling"** — it covers only sanitary and domestic uses. According to industry reports (AWS, Microsoft, LBNL), evaporative cooling **at a hypothetical 500 MW of continuous IT load** draws **1 440–21 600 m³ of water a day**: from more than half an Olympic pool to nearly 9 pools a day — that is, from about 1 to 14.4 million 1.5-litre bottles. (*Analysis §1.4.1, §1.4*)
- Even under the promise, the centre will physically **add 68–91%** to the estimated household water use of the village (220+ houses). (*Analysis §1.4.1*)

We don't know:

- Which cooling has been chosen — without that, nobody knows whether water use will be "like a village" or "like 9 pools a day". — Questions **Q88, Q85**
- Whether in a drought year there will be enough water for everyone — and whose right takes precedence. — Question **Q35**

How this was computed: $50\,000\text{ L} \div 1.5\text{ L} \approx 33\text{ thousand}$; $1\,440 \div 2\,500 = 0.58$ and $21\,600 \div 2\,500 = 8.6$ (a pool = 2 500 m³); $1\,440\,000 \div 1.5 \approx 1\text{ million}$ and $21\,600\,000 \div 1.5 = 14.4\text{ million}$; $50 \div (55\text{--}73) = 68\text{--}91\%$. Water usage effectiveness (WUE) range 0.12–1.8 L/kWh: 0.12 = the AWS fleet (2025), 1.8 = an older evaporative fleet. Sources: Analysis §1.4.1, §1.4.

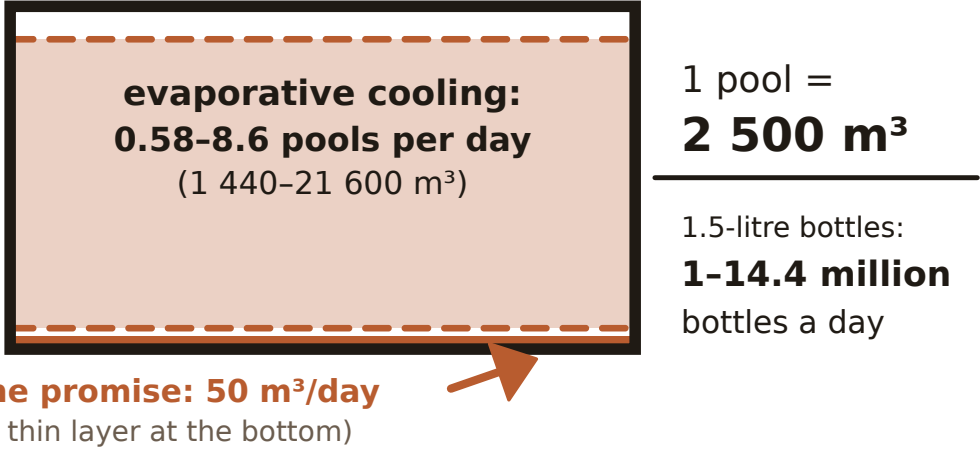


Diagram: one Olympic pool (2 500 m³) with the cooling band of 0.58–8.6 pools per day (1 440–21 600 m³) marked, and the level of the 50 m³-per-day promise.



Gensets — the power reserve you cannot see

To keep the power supply continuous, data centres carry their own reserve: fuel-powered generator sets.

We know:

- The investor's Project Information Sheet (KIP) provides for an installation of about **720 MW** of electrical capacity in "at least **100 generators**", fuelled by diesel or HVO. (*Analysis §6.9.1*)
[TIER A] [SELF-REPORTED - figures from the KIP: a party declaration]
- Fuel stored on site: **7 500–13 000 m³** — that is **3–5 Olympic pools** of diesel or HVO, standing on the site permanently. (*Analysis §6.9.1*)
- "The distribution of tests will mean that **part of the installation may be undergoing checks every day**" — recurring noise, exhaust and tanker traffic may be the daily norm, not the exception. (*Analysis §6.9.1*) [TIER A] [SELF-REPORTED - quote from documentation filed by the investor]

We don't know:

- Whether a campus with this much fuel will be classified as an upper-tier major-accident-hazard plant. — Question **Q91**
- What emissions, noise and logistics the daily testing of hundreds of gensets imply. — Question **Q90**
- At what hour the gensets will be tested — at night too? — Question **Q56**

How this was computed: $7\,500 \div 2\,500 = 3.0$; $13\,000 \div 2\,500 = 5.2$ pools (the source rounds to 5). Source: *Analysis §6.9.1*.

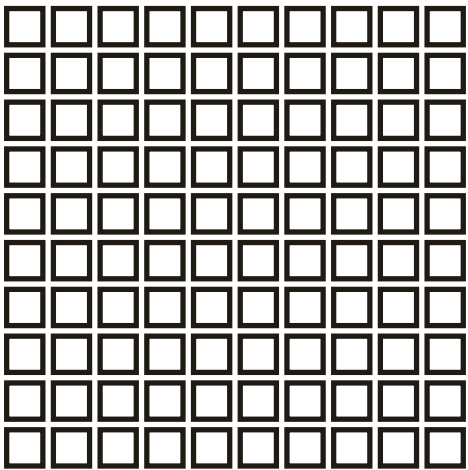


Diagram: at least 100 gensets (approx. 720 MW) plus a fuel store of 3–5 Olympic pools (7 500–13 000 m³), standing on the site permanently.

≥100 gensets

approx. 720 MW
of generators



3–5 pools of fuel
(7 500–13 000 m³)
diesel / HVO fuel
— permanently on site



Noise — forty decibels at night

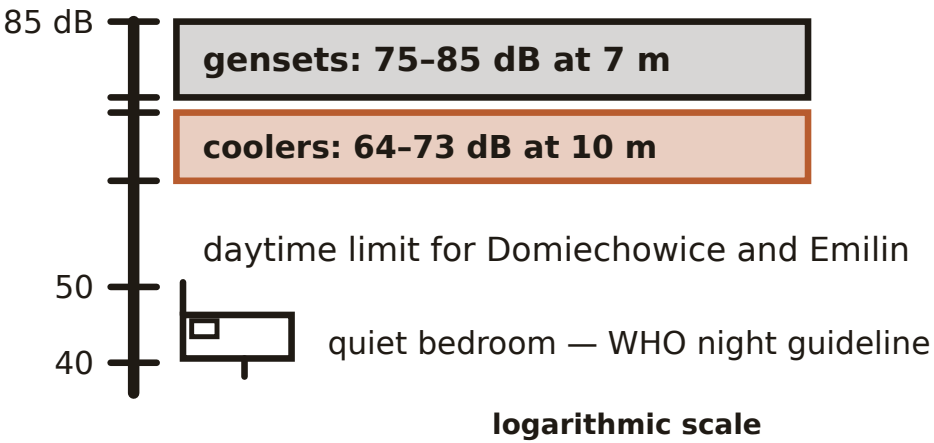
We know:

- The limits for Domiechowice and Emilin depend on how the law classifies the nearest houses: **single-family housing — 50 dB by day and 40 dB at night; farmstead housing — 55 and 45 dB**. 40 dB is the level of a quiet bedroom or a library — that is how much noise the law allows at night beyond the fence of neighbouring single-family homes. (*Analysis §2.2, §6.2*)
- The World Health Organization's health-protection recommendation: night-time noise outside bedrooms **no higher than 40 dB** — that is the L_{night,outside} measure (a long-term average), a different measure from the Polish night limit (the worst hour of the night). Numerically the single-family limit equals the recommendation (for farmsteads it is 5 dB more lenient) — but no one has yet verified it with a measurement. (*Analysis §1.6*)
- Catalogue levels of the equipment that will work here: coolers **64–73 dB(A)** already at 10 m, gensets **75–85 dB(A)** at 7 m. (*Analysis §1.6.1, §1.6*)
- A purely theoretical upper estimate: if the fleet of 290–550 coolers (at 64–73 dB each at 10 m) were treated as a single source in free field, with no attenuation at all, the contour of the 40 dB night limit **could reach 2.7–10.5 km** from the campus. This is not a forecast and not an EIA contour. (*Analysis §1.6.1*) [COMPUTED]

We don't know:

- How quiet it is today: a baseline measurement was never taken — the forecast gives not a single measured value in decibels. — Question **Q57**
- How many coolers there will be, at what levels, and whether acoustic studies are planned. — Question **Q55**

Worth remembering: dB is a logarithmic scale ($10 \cdot \log_{10}$ of energy) — +3 dB is roughly twice, +10 dB ten times the sound energy. 50 dB is ten times the energy of 40 dB — not "a bit more".



The noise ladder: 40 dB (a quiet bedroom, the WHO night guideline), 50 dB (the daytime limit for single-family housing — 55 for farmsteads), 64–73 dB coolers at 10 m, 75–85 dB gensets at 7 m.



Heat — the biggest unused card

We know:

- All the power drawn returns as heat — **around the clock, all year: 500 MW to 1 GW of waste heat**. Field studies of other data centres show temperature rises of **about 1°C, in places up to 2°C**, just beyond the fence — for Domiechowice there is no model and no measurement. (*Analysis §2.2*)
- Immersion cooling returns heat in a fluid at **52–60°C** — heat potentially usable for a network: directly only in low-temperature networks; classic networks require a heat pump. (*Analysis §1.2.2*)
- **A real prize, if it is written into the plan: 40–50 MW from the centre covers about 75% of the heat needs of a thirty-thousand-resident town** (the analogy's model town — Bełchatów itself has approx. 51 thousand residents). After 2035 the town of Bełchatów is looking for a new heat source (it needs 100 MW) — 40–50 MW from the centre would correspond to **40–50%** of that demand. (*Analysis §1.2.2, §6.4*)

We don't know:

- Whether the EIA report will compute heat recovery for Bełchatów at all. The Wójt's order requires it ("describe the way the generated heat will be managed, state the estimated amount of recovered heat"), but the KIP supplement notes: "at this stage, the construction of heat-transport pipelines beyond the boundaries of the investment site is not planned". — Questions **Q86, Q92**

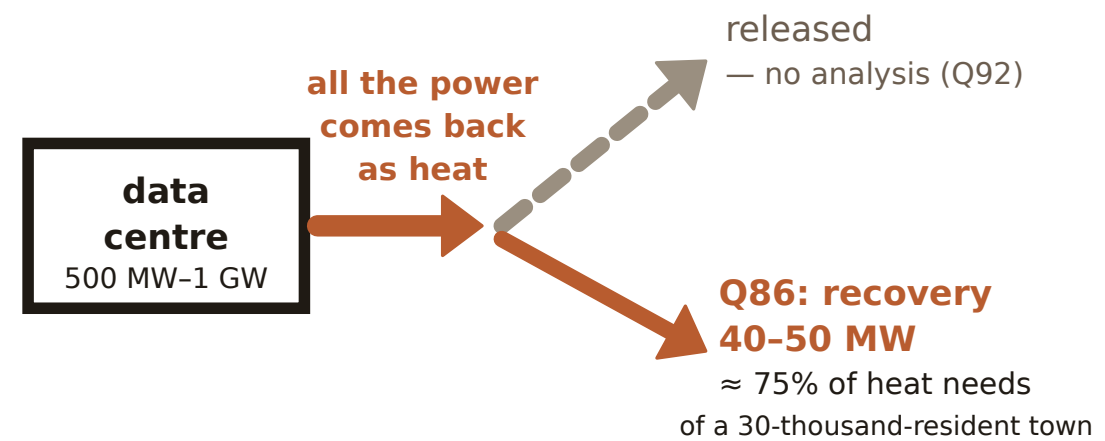


Diagram: all the power drawn comes back as heat; the grey arrow — heat released with no analysis, the orange one — recovery of 40–50 MW, i.e. approx. 75% of the heat needs of a thirty-thousand-resident town (the analogy's model town — Bełchatów itself has approx. 51 thousand residents).



The site and its buildings — 74 football pitches, permanently

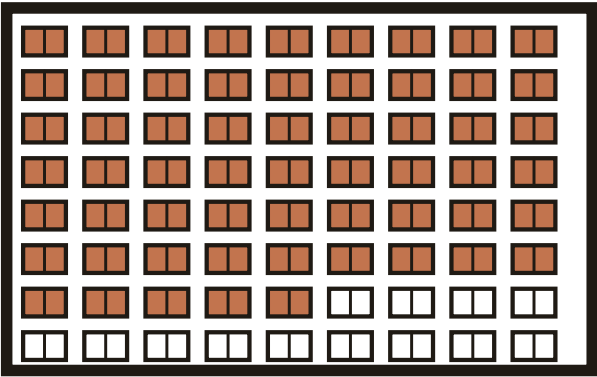
We know:

- The site: **52.6016 ha** — **about 74 football pitches**. Today agricultural land, undeveloped, along national road 74, next to State Forest lands. (*Analysis [What and where](#)*)
- Buildings: **an estimated 300–500 thousand m² of gross floor area** (assuming 600–1 000 m²/MW) — that is 42–70 pitches of floor alone (the sum of storeys; buildings have more floor area than the site has land, because they grow upwards). (*Analysis Scale, §3.3.1*)
- Per the KIP, about **80% of the area will be built up or surfaced** (approx. 42 of 52.6 ha); no more than 20% stays biologically active. (*Analysis §6.9.1*)

We don't know:

- The fate of the trees and greenery — the dendrological inventory is yet to be published. — Question **Q58**
- The actual classes and origin of the soils across the whole site. — Question **Q59**

*How this was computed: $526\,016\text{ m}^2 \div 7\,140\text{ m}^2$ (a FIFA pitch of $105 \times 68\text{ m}$) ≈ 74 ; $300\,000 \div 7\,140 \approx 42$; $500\,000 \div 7\,140 \approx 70$. Sources: *Analysis [What and where](#)*–Scale, FIFA.*



52.6016 ha $\approx$ 74 football pitches
approx. 80% built-up or surfaced

Diagram: a site of 52.6016 ha, i.e. approx. 74 football pitches, about 80% of it built up or surfaced; the buildings (an estimate) at 300–500 thousand m² are 42–70 pitches of floor alone.

buildings — estimate
300–500 thousand m²
= 42–70 pitches
of floor alone
(at 600–1 000 m²/MW;
sum of storeys:
more than the site)



What do we get out of it? — jobs and taxes

We know:

- **Taxes are the gmina's largest guaranteed yearly revenue** — an estimated figure under assumptions: about **PLN 11.3–21.4 million a year** at 500 MW (at ~1 GW: PLN 21–39 million), i.e. **7–13%** of the gmina's revenues this year (PLN 164.1 million). *(Analysis §3.3.1, §3.3)*
[COMPUTED]
- Per resident — the statistical equivalent: about **PLN 890–1 680 per person a year**.
[COMPUTED]
- **Employment — the investor's document contradicts itself:** the KIP's economics section speaks of "of the order of **several dozen jobs**", the technical one of "up to about **several hundred people**". In April, meanwhile, a construction site "for several thousand people" was promised. *(Analysis §3.1)*

We don't know:

- Where the employment figures come from and what exactly they count (own staff? contractors? which phase?). — Question **Q70**
- How many of those jobs will go to residents of the gmina and the county. — Question **Q72**
- The full net account: tax revenues against the network, road and maintenance costs the gmina will bear. — Question **Q81**

How this was computed: $PLN\ 11.3\text{--}21.4\ \text{million} \div 12\ 718\ \text{residents} \approx PLN\ 890\text{--}1\ 680\ \text{per person per year}$. The account covers property tax on all three components — buildings, land and structures. The gmina's 2026 rates: $PLN\ 31.14/m^2$ of buildings · $PLN\ 1.20/m^2$ of land · 2% of structures (a Gmina Council resolution); the assumption is 600–1 000 m² of gross floor area per megawatt. The Wójt announced revenues of "2.5–3 × the power plant" — with no published calculation (Question Q77). Sources: Analysis §3.3, §3.3.1 (gmina budget 2026: revenues PLN 164.1 million).

gmina revenues 2026 — PLN 164.1 million

data-centre taxes (at 500 MW):



7-13% per year = PLN 11.3–21.4 million a year
jobs — KIP economics: "several dozen jobs"
KIP technical: "up to several hundred people"
Wójt (April): "several thousand" on site
per resident a year

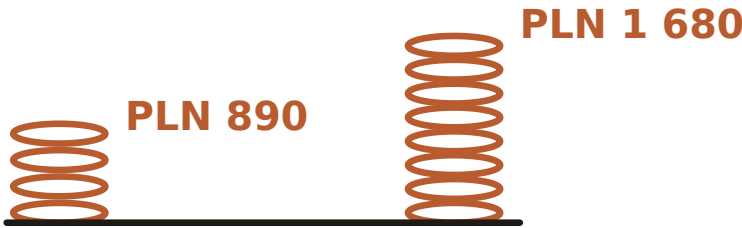


Diagram: the statistical equivalent of PLN 890–1 680 per resident a year; taxes of PLN 11.3–21.4 million (an estimated figure) are 7–13% of the gmina's revenues (PLN 164 million); the three employment promises side by side.



What we still don't know — all in one place

This is the heart of the presentation. The key open "we don't know" items — all on one list. As long as these items stay open, nobody can say of this project "all clear":

- **Cooling technology** — five different public descriptions, while the KIP says: "technology not yet chosen". Not a single design number. (Q88, Q45)
- **Water** — the KIP contains zero cooling-draw figures; the full water balance is yet to be produced in the EIA report. (Q89, Q30)
- **Noise** — no baseline measurement, no maps of distances to buildings, no sound-propagation model. (Q57, Q9)
- **Heat** — no heat-recovery analysis for Bełchatów, even though the Wójt's order requires it. (Q86, Q92)
- **Gensets** — an unknown test schedule (day or night?) and the scale of the fuel logistics. (Q90, Q56)
- **Electromagnetic fields and battery storage** — two components of the campus without a single number in the documents. (Q95)
- **The first tenant and energy contracts** — nothing is known about the lease, the energy contracts and the general contractor. (Q5)
- **The schedule** — no list of administrative decisions with dates. (Q61)

(The full list of gaps against planning requirements: Analysis §1.8. Ready-made questions: the "111 questions" sheet, themes 1–20.)

☐

 **water**

☐

 **noise**

☐

 **heat**

☐

 **fuel,
logistics**

☐

 **energy,
tenant**

☐

 **schedule**

The list of questions to ask: water, noise, heat, fuel and logistics, energy and the tenant, the schedule — every item has its number in the "111 questions" sheet.



What you can do

- **Ask the questions from the "111 questions" sheet.** Every "we don't know" in this presentation has its number — the questions are already formulated, ready to send or to ask at a meeting. The sheet, together with ready letter templates (formal comments on the plan, a freedom-of-information request), is in the document package: <https://domiechowice-dc.pages.dev/>
- **Come to meetings and consultation sessions.** Oral answers are not binding — so note them down carefully and confirm by e-mail ("please confirm today's answer in writing").
- **Document nuisances from the first day** — noise, smell, traffic: with the date, time and place. No one ever made the baseline measurement; your notes may be the only record of "how it was before".
- **Judge by documents, not by comments.** Poles know AI tools well (92%), but only 5% often read about their environmental costs; 67% of active users would cut their use if the cost were proven, and 50% want a mandatory environmental label on AI queries (Pollster survey, March 2026, N=1021). Domiechowice can be the exception to that rule — because you ask.

All documents (the analysis, the questions, the fact-checking cards): <https://domiechowice-dc.pages.dev/>

Version: 1.4



Three steps: ask the questions from the sheet, send a letter from the ready template, note nuisances from day one.



About this document

What this document is

This is a citizen analysis prepared by the residents of Gmina Bełchatów. Its core is a body of factual findings built on public sources — BIP documents, the draft local spatial plan, the KRS company registry, EU and WHO standards, and the press — and every claim carries a source-class tag (TIER A–D) and a claim status, with a reference to a numbered source list, so it can be checked independently. Doubts and questions are not what this work consists of: they are separated, clearly labelled parts, and most pages are taken up by findings and the evidence behind them. Where the sources diverge, we record the divergence instead of settling it by assumption.

All quotations from Polish sources are translated by the residents.

Who we are

We are an informal, fluid group of residents; a few people usually work on the documents, with other residents of the gmina supporting us on specific matters. We have higher-education backgrounds and extensive professional experience — among other fields, construction, computer science, electronics, power engineering and the social sciences. None of us belongs to a political party or movement, and nobody plans to stand in elections; the group includes both supporters and opponents of the data centre. This work was not commissioned by anyone, we act on no one’s inspiration and nobody pays us for it — we are guided by civic responsibility for the common good.

How these documents are made

These documents are prepared with the support of artificial-intelligence tools, which assist with searching, comparing and summarising sources. The direction of the analysis, the choice of facts, the judgements and the questions belong to the residents, and factual claims are verified by a human against the cited sources (the TIER source-class system). The full account of how we worked is in the chapter “How this analysis was made” of the main report.

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