

Investment Has Been Decided, Financing Has Not

What NEST, AgNes and KANU 2.0 mean for Stadtwerke financing in Baden-Württemberg and Germany

September 15, 2026

German utilities are entering the largest investment period in their history with balance sheets built for a much slower one. The regulator has just rewritten the rules, the owner wants a bigger dividend, and the gas network is being depreciated toward an exit date. What that means for the people who have to produce a plan.

Executive Summary

Municipal utilities, known as Stadtwerke, own most of Germany's local electricity and gas distribution networks. They are now being asked to invest at two to three times their historical rate. Most cannot fund it, and the reasons are structural rather than cyclical.

What is happening

- Nine out of ten Stadtwerke say the required investment goes beyond anything they have planned for before. A quarter expect an increase of **more than 200 percent**. And **92 percent** expect that investment will have to be supported by external financing instruments beyond those they use today (**BDEW/EY Stadtwerkstudie 2026**, 100 companies surveyed).
- The owner is broke. German municipalities ran a **€31.9 billion deficit in 2025**, the highest on record, and municipal short-term borrowing stood 16.5 percent above the prior year at the end of September 2025.
- Average leverage across the sector has already moved from a debt ratio of **2.4 in 2018 to around 4.0 in 2023** (Kearney). Individual cases are far worse.
- Three regulatory changes land in the same window: the **NEST** determinations of **10 December 2025** reset how returns are calculated; **AgNes** replaces the entire electricity network tariff system from **1 January 2029**; **KANU 2.0** is already accelerating depreciation across 86 percent of gas distribution operators.

Why it broke

The financing model assumed modest, sequential investment, a generous dividend, and a regulated return that comfortably covered the cost of capital. All three assumptions failed at once, and they failed for related reasons rather than by coincidence.

Where it goes wrong

Most utilities cannot answer three questions in a board meeting: how much capital expenditure is genuinely financeable per year, in which year the equity ratio bottoms out, and what dividend is still possible on that path. That is not a capital markets problem. It is a planning problem, and it is solvable.

Our position

The money will largely be found. The open question is whether a given utility negotiates for it early, from a defensible model, or late, under pressure, at a worse price. In our experience the difference between those two positions is more often planning capability than balance sheet strength.

Baden-Württemberg: Higher Netzentgelte, Earlier Heat Deadlines

It is tempting to discuss this nationally. The pressure is not distributed nationally.

Baden-Württemberg pays more than most. Average electricity network charges (Netzentgelte, the regulated fee every user pays for using the network, collected through the electricity bill) sit at around **9.8 ct/kWh** in Baden-Württemberg for 2026, in the upper middle of the national range. Mecklenburg-Western Pomerania pays around 7.4 ct/kWh; Hamburg around 11.8. The gap between the cheapest and most expensive German states is therefore about 4.4 ct/kWh for 2026 — down from **5.1 ct/kWh** in 2025, and wider still if you compare individual network areas rather than state averages.

The reason is counterintuitive and worth understanding, because it drives a great deal of local politics. Network costs are being redistributed nationally toward regions with heavy renewable generation. Those regions, among them Schleswig-Holstein, Mecklenburg-Western Pomerania, Brandenburg, Saxony and Bavaria, saw the sharpest reductions for 2026. The southwest, including Baden-Württemberg, Rhineland-Palatinate and North Rhine-Westphalia, absorbed a proportionally larger share of the national network expansion cost. Baden-Württemberg is on the paying side of that equation.

The 2026 relief is borrowed, not earned. Netze BW, the EnBW subsidiary that operates roughly 100,000 kilometres of network for **2.37 million electricity customers** in the state, cut its household unit rate from 9.73 to **7.57 ct/kWh** for 2026, a reduction of around 22 percent. That reduction is almost entirely attributable to a **€6.5 billion federal subsidy** to transmission network costs, financed from the Climate and Transformation Fund, which reduced average transmission-level charges by 57 percent. It is a one-year intervention against a cost base that keeps rising. Anyone building a 2027 plan on the 2026 number is planning on a subsidy.

The two figures above are not in conflict, and the difference is worth naming because it causes confusion in board papers: the **9.8 ct/kWh** state average covers all operators and all charge components, while Netze BW's **7.57 ct/kWh** is one operator's household energy rate excluding the standing charge, which fell separately from €107.96 to €84.00.

Gas is moving the other way. At Netze BW gas network charges rose around one percent for 2026. Nationally the picture is harsher. Market estimates put the average increase in gas network charges at **10 to 12 percent** for 2026. The **Bundesnetzagentur's** own figures isolate the depreciation effect: operators applying **KANU 2.0** for the first time in 2026 see increases of around **23 percent**, those that adopted a year earlier around 2.6 percent, and around 5.2 percent on average across all operators applying it. More on why in the section on **KANU 2.0** below.

Baden-Württemberg is ahead on heat, which means it is ahead on the cost. The state legislated municipal heat planning (kommunale Wärmeplanung) before the federal government did. Its Stadtkreise and Große Kreisstädte were required to produce heat plans

by **31 December 2023**. Under the federal Heat Planning Act the obligation now extends to every municipality: those above 100,000 inhabitants were due by **30 June 2026**, a deadline that has now passed, and all others by **30 June 2028**. Baden-Württemberg also targets greenhouse gas neutrality by **2040**, five years ahead of the federal 2045.

Being early is an advantage in planning and a liability in financing. Baden-Württemberg's utilities reach the point where a heat plan has to become a funded business case sooner than most of the country.

Add to this the state's industrial profile. Baden-Württemberg's manufacturers, among them automotive suppliers, machine builders and the Mittelstand that defines the region, are simultaneously under margin pressure and carrying network costs in the upper half of the national range. Industrial network charge relief is one of the explicit objectives of the **AgNes** reform, which makes that reform a competitiveness question for this state specifically, not only a regulatory one.

The National Picture: External Financing Is Now the Default Expectation

Baden-Württemberg's version is a local expression of a national problem.

The **BDEW/EY Stadtwerkstudie 2026**, based on a survey of 100 Stadtwerke and regional suppliers, found that nine out of ten face an investment ramp beyond anything they have previously planned, a quarter expect an increase above 200 percent, and **92 percent** expect that the required investment will have to be supported by external financing instruments beyond those they use today. Only 47 percent now rate their business performance as good or very good, against 75 percent four years earlier.

The internal levers are already being pulled: cost reduction (84 percent of respondents), retaining earnings (77 percent), optimising investment planning (76 percent). The study's own conclusion is that these are reaching structural limits given the scale, duration and simultaneity of what is required.

On scale, the credible estimates differ by scope rather than by quality. A **KfW/PwC** study covering electricity and gas distribution networks plus grid-connected heat supply puts the regional energy transition investment need at approximately **€535 billion by 2045**, of which roughly two thirds falls before 2035. **Agora Energiewende** finds that small, classic Stadtwerke alone need around **€35 billion** between 2026 and 2045. Modelling by **IW Köln** for North Rhine-Westphalia alone finds **€38.2 billion** required by 2030 and, critically, that financing that volume while maintaining current dividend levels would roughly **halve average equity ratios**, requiring up to **€11.4 billion of fresh external equity** to hold equity at 30 percent of the balance sheet.

A considerably larger figure attributed to EY also circulates; it rests on a much broader definition of the transition and we would not plan against it.

How the Money Works: Regulated Returns, Querverbund and the Dividend

Most commentary on this subject skips the mechanics, which makes the rest unintelligible. Three structures matter.

The regulated return: Erlösobergrenze and Kapitalkostenaufschlag

Network charges are not a market price. The **Bundesnetzagentur** (BNetzA, the federal network regulator) sets a revenue cap, the Erlösobergrenze, for each network operator in advance, for a five-year regulatory period. Inside that cap sits an allowed return on the capital the operator has invested in the network. The operator keeps efficiency gains it achieves within the period and absorbs cost increases it does not.

This is Anreizregulierung, or incentive regulation. It was designed to squeeze efficiency out of a stable asset base. Applied to a period of rapid expansion, the same logic constrains capital formation, which is the heart of the industry's complaint.

The equity return set in October 2021 for the fourth regulatory period (gas 2023–2027, electricity 2024–2028) was 5.07 percent before tax and 4.13 percent after tax for new assets; existing assets are remunerated at 3.51 percent. Those rates were fixed in a period of historically low interest rates and have not moved since.

One mechanism matters a great deal for anyone modelling this and is frequently left out. The **Kapitalkostenaufschlag** under §10a ARegV allows new investment made during a regulatory period to be brought into the revenue cap and recovered immediately, rather than waiting until the next five-year period begins. TransnetBW, for example, applies both this and the investment measures under §23 ARegV. The practical consequence is that the regulated revenue base does not stand still while a network operator invests. It grows, with a lag. A financial model that holds revenue flat while the asset base doubles is not being conservative. It is ignoring the mechanism that exists to solve part of this problem.

The steuerlicher Querverbund

A typical Stadtwerk is not only an energy business. It frequently also runs the municipal swimming pools and the local bus network, both of which lose money structurally.

The steuerlicher Querverbund (tax cross-holding) is what makes this bundle work. Anchored in **§8 Abs. 7 KStG**, it permits the losses of these permanently loss-making public-service activities, known as Dauerverlustgeschäfte, to be offset against energy profits before tax, without being treated as a hidden profit distribution. Without it the municipality would fund pools and buses from after-tax budget money. The saving is real and large.

The losses are also real and large, and they are growing. Industry reporting has put the annual deficit of Bielefeld's transport operations at around **€18 million** and Osnabrück's at around **€17 million**; Bielefeld's moBiel reported a materially higher figure of €48.6 million for 2025. Those losses are absorbed by the utility group, the same group now trying to fund a tripled capital programme.

One genuinely positive development, largely unnoticed outside the sector: a Federal Finance Ministry letter of **10 October 2025** extended the technical linkage that qualifies for the Querverbund beyond the traditional gas-fired CHP unit (BHKW) to include **heat pumps, hybrid PV-thermal systems and district heating networks**, and lowered the qualifying pool size threshold from 1,000 to 750 cubic metres. Decarbonising the swimming pool no longer breaks the tax structure. Several Querverbund questions nonetheless remain open before the Federal Fiscal Court.

The municipal dividend

An analysis of more than 60 Stadtwerke by BET found that, on average, 77 percent of profit is distributed to the municipal owner. Listed German companies in the DAX, MDAX and SDAX distribute around **41 percent**. Some Stadtwerke exceed 100 percent in a given year by releasing accumulated reserves.

This deserves to be stated fairly, because it is frequently framed as municipal short-sightedness and it was not. Those distributions funded swimming pools, bus networks, libraries and kindergartens. The alternative was higher local taxation or fewer services. For three decades the policy was rational under conditions that genuinely held: investment was modest, predictable and largely self-financing, and the utility could fund it from what remained plus a small loan.

Those conditions have ended. That is a different statement from saying the policy was ever a mistake.

Why the Model Broke: Four Causes That Compound

The physical task inverted. The distribution network was built to move power one way, from a few large plants to many consumers. Decentralised generation reverses that flow in the low- and medium-voltage network, which was not designed for it. Simultaneously, heat pumps and electric vehicles are raising peak load on the same assets. The result is that reinforcement is required almost everywhere rather than selectively.

Everything arrived at once. Network reinforcement, the heat transition, and the gas network wind-down are live simultaneously, driven by different actors on different timelines that were never coordinated with one another because historically they never needed to be. A utility that has always executed one major programme at a time now has three, and they interact. A gas main replaced this year in a street designated for district heating next year is money spent twice.

Capital got more expensive exactly when more of it was needed. Rates normalised upward from the 2010s lows. Lenders tightened equity requirements. And several hundred Stadtwerke are approaching a similar set of lenders in the same years with similar requests.

The owner's finances deteriorated in parallel. The **€31.9 billion** municipal deficit in 2025 is not a coincidence sitting alongside the utility's problem. Both are downstream of the same pressure on German public finances. But it means the shock arrives from two directions simultaneously: the utility needs to retain earnings at precisely the moment the municipality needs to extract them. Neither party is behaving unreasonably. They are both responding correctly to their own constraints, and the constraints are incompatible.

The most visible case is Dortmund, where DSW21 resolved distributions of **€500 million across 2024 to 2027** to keep the city out of formal budget supervision (Haushaltssicherung).

What It Is Causing: Leverage, Gas Depreciation and Two Regulatory Resets

Leverage: from a sector debt ratio of 2.4 to 4.0

The average debt ratio across Stadtwerke, meaning net debt divided by operating cash flow and expressed as the number of years required to repay, moved from **2.4 in 2018 to around 4.0** in 2023 according to Kearney. That is an average; the distribution matters more.

Stadtwerke Osnabrück is worth examining not because it is typical, but because it is one of very few Stadtwerke where the equity ratio, the capital injection and the debt ratio are all in the public domain. Its dynamic debt ratio was **6.5 in 2025**, planned at **7.7 for 2026**, and would have been **8.1** without intervention, against an internal target of 4. Its equity ratio reaches 25 percent in 2026 only because the city is injecting capital — **€15 million** a year, up to €75 million through 2029; without the 2026 tranche the ratio would be 22.4 percent. Its own planning showed the operating result remaining negative throughout the 2025–2028 medium-term period absent owner support, with cumulative losses of roughly €128 million.

Osnabrück is not a cautionary tale about a badly run utility. It is a well-documented example of a structurally normal one.

KANU 2.0: 86 percent of gas operators are already accelerating depreciation

KANU 2.0, the BNetzA determination published in September 2024, permits gas network operators to shorten calculated asset lives and apply degressive depreciation, so that the cost of gas infrastructure is recovered while there are still customers to carry it rather than being loaded onto the last remaining users before 2045.

Adoption has been rapid. In 2026, **118 of 132 gas distribution operators, or 86 percent, are applying KANU 2.0**, along with nine of fifteen transmission operators. The effect on charges is immediate: operators applying it for the first time in 2026 see increases of around **23 percent**, while those that adopted earlier see around 2.6 percent, attributable mostly to inflation and volume effects.

Two open risks deserve naming. The tax treatment is unresolved: the commercial accounting position has been clarified but the corresponding Finance Ministry guidance has not been issued, which is uncomfortable for any company seeking alignment between commercial and tax accounts. And the mechanism is politically contested, with figures in the governing coalition publicly questioning degressive gas depreciation. A utility that has built its transformation financing around accelerated gas depreciation is carrying a political risk it may not have priced.

AgNes: the electricity tariff system is replaced on 1 January 2029

AgNes, or Allgemeine Netzentgeltssystematik Strom, is the reform of the entire electricity network tariff system. The BNetzA published the full draft determination on **6 August 2026** and opened final consultation until **18 September 2026**, with the determination expected by end-2026 and application from **1 January 2029**, at which point the existing StromNEV regulation ceases to apply.

The scale is roughly **€37 billion of annual network costs** being reallocated. Substantively: generators above 30 kW are brought into network cost financing for the first time, at an indicated **4 to 7 €/kW/year**; the demand charge gives way to a booked capacity price for customers above 100,000 kWh a year; a basic charge becomes mandatory with caps; storage receives a capacity price but not an energy charge, with meaningful grandfathering; and the §19(2) band-load arrangement for existing industrial customers is extended to end-2031.

For a distribution operator this is not primarily a pricing change. It is a **data and billing problem**, and it runs on a fixed clock. The accompanying smart meter rollout must reach **95 percent of mandatory cases by end-2030**.

NEST: what the December 2025 decisions changed

The **NEST** process, short for Netze, Effizient, Sicher, Transformiert, began in January 2024 following a 2021 European Court of Justice ruling (C-718/18) that transferred rule-setting authority to the regulator. Final determinations were published on **10 December 2025**.

The material changes: capital remuneration moves to a **WACC model on a standardised 40 percent equity / 60 percent debt structure**, with the equity component derived via CAPM, replacing the previous methodology with an internationally legible format. A revised averaging method **raises the equity return**, which the BNetzA estimates will increase electricity distribution operator revenues structurally by about **1.2 percent**, or roughly **€215 million per year** across the sector, or over €1 billion across the coming regulatory period. Debt cost is dynamised and weighted by investment volume in heavy investment years. The operating cost adjustment (Betriebskostenanpassung) already available to standard-procedure operators is extended to those in the simplified procedure. Against this, the efficiency benchmark tightens: minimum efficiency rises from 60 to 70 percent and identified inefficiency must now be eliminated within three years rather than across the five-year period, with redispatch costs brought into scope.

The fifth regulatory period begins in **2028 for gas and 2029 for electricity**. The actual WACC rates for electricity distribution operators will be set in **separate procedures during 2027**. A draft WACC determination for gas appeared on **14 August 2026**.

Three things remain open, and the BDEW has said publicly that they will determine whether the package mobilises the investment required: the **minimum return** has not been communicated, the concrete rules for the operating cost surcharge are not set, and the thresholds for the simplified procedure are undefined.

A Modelled Mid-Sized Stadtwerk: Three Dividend Scenarios

Here is a model of a mid-sized Baden-Württemberg Stadtwerk. Every assumption is stated so you can argue with it. That is the point of showing it.

The company. Around 60,000 network customers. Balance sheet total €320 million. Equity €80 million, so an equity ratio of 25.0 percent. Net debt €120 million. EBITDA €30 million. Depreciation €16 million. Interest €5 million, a blended 4.2 percent. Tax €2.5 million after Querverbund offsets. Net income €6.5 million. Dividend to the municipality €5 million, a 77 percent payout, exactly the sector average BET reports. Historical capital expenditure around €16 million a year, roughly at depreciation.

The change. Required capital expenditure rises to **€34 million a year**, slightly above a doubling, well inside the range the BDEW/EY study describes and below the 200 percent-plus that a quarter of respondents expect.

Three things move with it, and they pull in different directions. Depreciation rises as the new assets enter the balance sheet. Regulated revenue rises too, because the allowed return on a growing asset base enters the revenue cap, with a lag, and assisted by the **Kapitalkostenaufschlag** described above. And the cost of debt rises as leverage

deteriorates, because lenders reprice. A model that omits any one of these is not conservative, it is simply wrong in a known direction.

Assumptions, all arguable. EBITDA grows from €30m with the expanding regulated asset base on a one-year lag, reflecting the allowed return and depreciation recovery entering the revenue cap; this is the assumption most likely to be too generous if regulatory lag is longer in practice. Depreciation rises from €16m in line with capital expenditure at an average 30-year asset life. Blended interest steps from 4.2 percent to 5.0 percent across the period as leverage deteriorates. Tax is held flat in euro terms after Querverbund offsets, which is conservative in the later years, when it implies an effective rate well above the German norm. No asset disposals, no mezzanine, no grant funding, no efficiency gains from the **NEST** benchmark tightening. All three scenarios run off one engine, so the differences between them are attributable only to the dividend and the equity injection.

	Today	Year 3	Year 6
A. Dividend maintained at €5m			
Equity ratio	25.0%	22.0%	18.5%
Net debt	€120m	€167m	€209m
Debt ratio (net debt / EBITDA)	4.0	5.1	5.6
B. Dividend suspended entirely			
Equity ratio	25.0%	26.2%	26.9%
Net debt	€120m	€151m	€176m
Debt ratio	4.0	4.6	4.7
C. Dividend suspended + €25m equity injection in Year 1			
Equity ratio	25.0%	34.0%	35.0%
Net debt	€120m	€122m	€143m
Debt ratio	4.0	3.7	3.8

Three observations.

Scenario A puts the company outside its own financing parameters within three to four years, and below 20 percent equity by year six. At an equity ratio of 22 percent and a debt ratio above 5 by year three, this is already a materially more expensive borrowing conversation. Note that nothing in Scenario A involves anyone making a mistake. It is what happens when an unchanged dividend policy meets the new investment requirement.

Suspending the dividend entirely is roughly half the answer, not all of it. Scenario B stabilises the equity ratio near 27 percent, which is a genuinely different position, but the debt ratio still rises from 4.0 to 4.7, and it does so while the municipality receives nothing for six years. That is a hard proposition to sustain politically for a benefit that is real but partial.

External equity changes the shape. Scenario C produces a comfortably financeable path. It also requires a municipality running a deficit to find €25 million, which returns the problem to where it started, which is precisely why the conversation has to be modelled rather than argued.

One further comparison is worth showing. An earlier version of this model held EBITDA, depreciation and the interest rate flat. It produced a year-six debt ratio above 7.5 rather than 5.6, more than a third worse, while producing almost exactly the same equity ratio: 18.7 percent against 18.5 percent. That is not a coincidence. Holding depreciation flat adds back on the profit line roughly what holding EBITDA flat takes away, so retained earnings and the equity ratio are barely affected, while nothing offsets the additional cash drain on the debt line. The practical lesson is that the debt ratio is highly sensitive to whether you model the regulatory revenue mechanism, and the equity ratio is not. Steer on the equity ratio, because it is what the owner and the balance sheet actually constrain and it is stable enough to plan against; monitor the debt ratio, because that is the number lenders and covenants price.

The honest conclusion from the model is not that one lever fixes this. It is that a utility needs to know which combination of levers, in which years, keeps it inside its financing constraints, and that this is knowable in advance.

What Stadtwerke Are Not Doing, And Why

This is the part that rarely gets written, so we will be direct.

Most utilities are not building an integrated multi-year group model. The obstacle is not technical. It is that the model requires cross-divisional agreement on assumptions, surfaces uncomfortable numbers in front of a supervisory board, and belongs to nobody in particular. Network planning sits with engineering, the dividend sits with the managing director and the owner, heat sits with a project team. The model that reconciles them has no natural owner, so it does not get built.

The dividend conversation is structurally difficult to have. The municipality is both shareholder and political authority, which means the person who would have to open it reports, indirectly, to the person who would least like to hear it. This is not a failure of courage; it is a governance design that makes the conversation costly for whoever starts it. The practical consequence is that it tends to be deferred until an external event such as a covenant, a rating conversation or a failed financing forces it. Osnabrück and Dortmund are notable precisely because they are exceptions, in opposite directions.

Gas and heat are planned separately. Different departments, different regulatory regimes, different timelines. The consequence is straightforwardly wasteful: capital deployed into gas assets in areas scheduled for heat network conversion, and decommissioning provisions built without reference to where the heat plan lands.

Investment portfolios are not risk-differentiated. Investment lists are assembled bottom-up by engineers who categorise by technical necessity, which is correct from their vantage point and useless to a lender. Nobody separates spending with near-certain regulatory cost recovery from spending exposed to a connection rate assumption. Then the supervisory board asks which is which, and the answer takes two months to produce.

Almost nobody is modelling NEST and AgNes yet. The stated reason is that the rates are not final until 2027. We think this is the wrong call. Scenario-modelling three variants now is cheap, and the alternative is receiving a number eighteen months before it applies with no time to respond to it.

What Works: Six Moves That Change the Outcome

Model the group, not the divisions. One cash flow, one equity ratio path, one debt capacity view, covering electricity, gas, heat, the Querverbund losses and the dividend in a single structure over ten to fifteen years rather than three to five. Assets with thirty-year lives cannot be steered on a planning horizon shorter than the trough you are trying to avoid.

Make the dividend a modelled variable rather than a residual. The productive version of the conversation with the municipality is not a request. It is three scenarios showing what the equity ratio and the investment programme look like at different distribution levels, with the financing consequence attached to each. That converts a political argument into an arithmetic one, and it is the single change most likely to alter an outcome.

Separate protected capital from exposed capital. For each major investment, state whether the cost recovery is regulatory, contractual or dependent on a behavioural assumption such as a heat network connection rate. Lenders price this distinction whether or not the utility makes it explicit. Our own observation from client work is that utilities able to present the split cleanly spend materially less time in the financing process and face fewer conditions; we are not aware of a study that isolates the pricing effect.

Open financing conversations before the need is acute. Commercial debt, Schuldscheine, EIB facilities, mezzanine structures via development banks, and the proposals from the association of public banks for municipal equity strengthening all reward a borrower with a credible plan and penalise one without. Utilities that begin eighteen months early are negotiating; those that begin when reserves run low are accepting terms.

Treat AgNes as a data programme with a deadline. The tariff logic changes on **1 January 2029** and the metering prerequisite runs to end-2030. Billing systems, metering concepts and customer data need to be ready before the tariff logic does. This is a three-year technical programme that many utilities are currently treating as a 2028 problem.

Model the gas exit as a balance sheet question, not an engineering one. KANU 2.0 adoption is an accounting decision with charge consequences, political risk, and an unresolved tax position. It should be modelled alongside the heat plan rather than in a separate gas workstream, because the two determine each other.

Where This Does Not Apply: Three Honest Limits

Better planning does not create capital. If the investment requirement genuinely exceeds what debt capacity, retained earnings and available equity can cover, a superior model produces a clearer view of the same wall. What it changes is the negotiation, the timing and the price, not the underlying arithmetic. Anyone promising otherwise is selling something.

Some utilities are below the size where independent execution makes sense. For the smallest Stadtwerke, the honest answer may be a regional cooperation, a shared network company, or selling a network stake. That conversation is politically difficult and frequently avoided, but avoiding it is itself a decision with a cost.

Capital is not always the binding constraint. Several utilities we speak to could finance more than they can physically build. Engineers, project managers and procurement capacity are scarce, every utility is recruiting from the same pool, and a fully funded programme that

cannot be executed has simply converted a financing problem into a delivery problem. Model the capacity constraint alongside the capital one.

Key Takeaways

The pressure is regionally specific. Baden-Württemberg sits in the upper half of the national network charge range at around 9.8 ct/kWh, is on the paying side of national cost redistribution, and is ahead of the federal timetable on heat planning, which means it reaches the financing question earlier.

The 2026 network charge relief is a subsidy, not a trend. A €6.5 billion federal intervention reduced transmission charges by 57 percent for one year. Netze BW's 22 percent household reduction is almost entirely attributable to it.

92 percent of Stadtwerke expect to need external financing instruments beyond those they use today, and the owner that would normally help is running a record €31.9 billion collective deficit.

The dividend is roughly half the answer, not all of it. In our model, suspending distributions entirely stabilises the equity ratio near 27 percent but still allows the debt ratio to drift from 4.0 to 4.7, while the municipality receives nothing for six years. Maintaining it takes the equity ratio below 20 percent by year six.

Three regulatory changes land in the same window. NEST resets returns from 2028/2029, AgNes replaces the entire electricity tariff system from 2029, and KANU 2.0 is already raising gas charges by around 23 percent for first-time adopters.

NEST gives back about €215 million a year sector-wide through the equity return change, which is real and visibly insufficient against the investment requirement.

Steer on the equity ratio; monitor the debt ratio. In our model the debt ratio moved by more than a third depending on whether the regulatory revenue mechanism was modelled, while the equity ratio barely moved. The equity ratio is the more robust number to plan against — but the debt ratio is the one that gets priced.

The failure mode is not financial, it is organisational. Nobody owns the integrated model, so nobody builds it, so the three questions a board asks cannot be answered.

The binding constraint is often execution capacity, not capital. Model both.

Questions We Get Asked

Is this a financing problem or a planning problem?

Both, but they are not equally tractable. The financing gap is real and structural. The planning gap determines whether a given utility meets that gap early with a defensible model or late under pressure. We work on the second because it is the one that responds to effort, and because the utilities that solve it consistently get better terms on the first.

How long a planning horizon does this require?

Longer than most utilities currently use. Three to five years is standard and it is too short: network and heat assets have thirty- to forty-year lives, and the equity ratio trough in our

model appears in years four to six. A ten- to fifteen-year model, rolled annually rather than rebuilt each autumn, is the minimum that makes the trough visible while there is still time to act on it.

What do lenders want to see?

In our experience, three things: a multi-year cash flow with stated assumptions rather than a single-year budget, a clear separation between regulatorily protected and commercially exposed investment, and evidence that the dividend policy has been discussed with the owner rather than assumed. The third surprises people. It is often the one that moves the conversation.

Does the NEST decision solve the return problem?

Partially. The move to a WACC structure and the revised equity methodology are genuine improvements, worth roughly €215 million a year across electricity distribution. Against that, the efficiency benchmark tightened and the inefficiency reduction path shortened to three years. And the **minimum return**, the operating cost surcharge rules and the simplified procedure thresholds are all still open. Model three scenarios rather than waiting for certainty.

Should we adopt KANU 2.0 for our gas network?

Eighty-six percent of gas distribution operators already have, which tells you something about the prevailing view. The considerations are that it raises charges materially in the first year of application, the tax treatment is not yet settled pending Finance Ministry guidance, and the mechanism is politically contested. It should be decided alongside the heat plan rather than as a standalone gas accounting question, because the two depend on each other.

Our municipality depends on the dividend. Realistically, what can we do?

Stop presenting it as a binary. The productive move is a scenario model showing what the investment programme, the equity ratio and the borrowing cost look like at several distribution levels over ten years. In most cases the outcome is neither maintaining the dividend nor abolishing it, but a phased reduction with a defined restoration point. That is a negotiable proposition. “We need to stop paying you” is not.

Is AgNes a tariff question or an IT question?

Operationally, mostly the second. The tariff logic changes on **1 January 2029**, but the metering, billing and customer data prerequisites take considerably longer to build than the pricing rules take to implement, and the smart meter rollout obligation runs to end-2030. Utilities treating this as a 2028 workstream are starting late.

We are a small Stadtwerk. Is any of this proportionate for us?

The model is proportionate; the programme may not be. A ten-year integrated plan for a utility with €150 million of revenue is a matter of weeks, not a transformation project. What is not proportionate for a small utility is building an internal capability to maintain complex scenario models permanently, which is an argument for doing it properly once and keeping it simple enough to be maintained by the people who have to use it.

Is there anything here you would not put in a proposal?

That the most valuable output is frequently uncomfortable. A good model does not always show that the investment programme is affordable. Sometimes it shows that the utility has committed to a heat network it cannot finance at the assumed connection rate, or that the dividend has been unsustainable for three years and nobody has said so. Boards do not always thank you immediately. They thank you eighteen months later.

How Centida Helps

We build the steering foundation underneath these decisions: the integrated multi-year model that connects the investment programme, the financing structure, the regulatory return and the dividend into one view a board can act on.

Concretely, that usually means producing the three numbers a supervisory board needs and most utilities cannot currently generate: how much capital expenditure is genuinely financeable per year, the year the equity ratio bottoms out, and what dividend remains possible on that path, and then making that model something the finance team owns and maintains rather than something it commissions annually.

We hold no software licence quota and no implementation partnership, which means “keep the system you have” is a recommendation we are able to make, and do make.

If you are heading into a Wirtschaftsplan without a clear multi-year picture, or into a financing conversation without a risk-differentiated view of your own investment programme, that is the conversation worth having before the numbers are due rather than after.

About the author

Christian Barte is founder and CEO of Centida. He spent his career in finance leadership across multiple continents and industries, including as CFO in industrial companies, with earlier roles at AT&T, Detecon, Orange Business and Horváth. His work focuses on the management foundations that connect strategic intent to operational decisions: planning architecture, steering frameworks, and the governance that makes them hold.

He writes here not as an energy specialist but as someone who has sat in the seat where the owner wants cash out of the business at the same moment the business needs cash in, and has had to produce a plan that survives contact with a supervisory board.

Centida is a boutique consultancy focused on planning and reporting, based in Oberkirch, Baden-Württemberg, working with finance and management teams across manufacturing, energy and utilities, telecoms and professional services.

Sources: **BDEW/EY Stadtwerke**studie 2026; **Bundesnetzagentur NEST** determinations of **10 December 2025**, **AgNes** draft determination of **6 August 2026** (GBK-25-01-1#3), **KANU 2.0** determination of September 2024 and subsequent adoption data; **KfW/PwC** study on regional energy transition financing to 2045; **Agora Energiewende**, “Investitionen in eine zukunftsfähige Daseinsvorsorge”; **IW Köln / Fin.Connect.NRW**, “Die Rolle der Stadtwerke in der Transformation”; Kearney analysis of Stadtwerke leverage; BET analysis of Stadtwerke distribution ratios; Statistisches Bundesamt municipal finance statistics 2025 and quarterly debt statistics to 30 September 2025; Netze BW preliminary network charges 2026; Ministerium für Umwelt, Klima und Energiewirtschaft Baden-Württemberg on kommunale Wärmeplanung; BMF letter of **10 October 2025** on the steuerlicher Querverbund; public reporting on Stadtwerke Osnabrück and DSW21.

Regulatory positions described here reflect the state of play as at September 2026. Several determinations, including the electricity WACC rates, the **minimum return** and the final **AgNes** determination, remain open at the time of writing.