# Smart Meters Health Dangers Report:

## Personal Statement & Case Testimony

> **"Smart meters present a direct and immediate hazard to human health.**
> My health was drastically impacted after our electric utility company removed traditional analogue meters and installed digital smart meters across our entire block. The day after these meters were activated, I experienced severe health effects:

- **Acute Neurological & Cognitive Distress:** I instantly developed cognitive side effects and experienced an aggressive attack on my peripheral and central nervous system. Within 48 hours of activation, the emissions originating from our home's walls caused such severe neurological disruption that I came close to leg paralysis.
- **Severe Insomnia & Sensory Disruption:** I can no longer sleep in my bedroom. The continuous electromagnetic fields create a sensation like my brain is being 'zapped' and forcibly kept awake, resulting in debilitating insomnia.
- **Whole-House Wiring Radiation:** Consultations with field professionals and extensive research revealed the root cause: the **Switch-Mode Power Supply (SMPS)** inside these digital meters injects high-frequency 'dirty electricity' directly onto building power lines. As a result, the entire electrical wiring harness throughout our house—and the electronics plugged into it—now re-radiate harmful electromagnetic fields into living spaces.
- **Inadequacy and Cost of Mitigation:** Mitigating this radiation required major structural changes to our living arrangements and significant expenditure on specialized filters. While these filters help lessen the pollution, they cannot eliminate it entirely.

> My experience is not an isolated anomaly—it is a direct biological reaction to unsuppressed conducted emissions that federal safety guidelines currently ignore."

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## Executive Summary

Current federal regulatory guidelines for electromagnetic exposure rely almost exclusively on thermal heating threshold limits (e.g., ICNIRP) and wireless RF transmissions, while failing to

regulate **conducted voltage noise ("dirty electricity")** produced by internal switch-mode power supplies (SMPS) in digital utility meters.

Technical laboratory testing shows that digital and smart meters generate up to **35 times higher conducted voltage noise** on household power lines than legacy analogue meters.

This noise turns building wiring into a whole-house antenna system, inducing acute non-thermal biological stress, neurological disruption, and severe sleep degradation.
Federal agencies should consider closing the existing regulatory loopholes, recognize non-thermal biological thresholds, and **enact a complete federal ban on all digital and smart electricity meters**, mandating a return to passive electro-mechanical analogue metering.

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## 1. Technical Measurement Evidence: Conducted Emissions ("Dirty Electricity")

- **35-Fold Increase in Conducted Noise:** Comparative laboratory testing of 23 electricity meter models (analogue, digital, and smart meters) by EMF Consult AS demonstrated that modern automatic smart meters (AMS) produce quasi-peak (QP) noise levels of **49 dBµV**, compared to the baseline level of **~18 dBµV** found in older analogue meters. This 31 dBµV difference represents **approximately 35 times stronger conducted voltage noise** on residential power lines.
- **Root Cause — Internal Electronics & SMPS:** Legacy electro-mechanical analogue meters contain no microprocessors or active power electronics, producing **zero** conducted electrical pollution. In contrast, digital and smart meters utilize active switching power supplies that continuously chop AC voltage, bleeding high-energy transients back onto the grid.
- **Constructive Interference in Transformer Circuits:** Testing reveals that placing multiple digital or smart meters on the same utility transformer creates **constructive interference**, systematically compounding noise levels across entire neighborhoods.

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## 2. Biological Mechanisms & Peer-Reviewed Scientific Research

- **Voltage-Gated Calcium Channels (VGCCs) & Oxidative Stress:** Low-frequency voltage transients and pulses alter cellular biological function at field strengths far below thermal thresholds by opening cell wall VGCCs, causing an overproduction of **reactive oxygen species (ROS)**, oxidative stress, and cellular damage.
- **Piezoelectric Inner Ear Stimulation & Neurological Distress:** The tectorial membrane and otoconia within the human inner ear possess **piezoelectric properties**, converting ultrasonic electromagnetic oscillations into mechanical micro-vibrations. This renders the auditory and nervous systems highly sensitive to power-line noise, triggering severe tinnitus, head pressure, and brain hyperexcitability ("zapping").
- **Clinical Biomarkers of Chronic Stress (Milham & Stetzer 2013):** Peer-reviewed research demonstrates that dirty electricity acts as a chronic physiological stressor. Filtering power-line noise resulted in significant post-intervention normalization of urinary **dopamine** and **phenylethylamine** levels.
- **Metabolic & Blood Sugar Disruption (Havas 2006, 2008; Milham 2014):** Studies document that dirty electricity on building wiring elevates blood glucose in electrically sensitive individuals ("Type 3 diabetes"), requiring higher insulin doses for Type 1 diabetics and causing higher fasting blood sugar in Type 2 diabetics.
- **School Field Trials (Havas & Olstad 2008):** In a single-blind trial across three schools, filtering power-line noise by >90% produced statistically significant health improvements in **64% of teachers** (reducing headaches, fatigue, and anxiety) and improved student behavior and academic focus.
- **Symptom Remission via Analogue Reversion:** Documented case histories, field surveys, and court rulings (such as the Oslo Appeal Court expert testimony and French Linky judicial decisions) confirm that replacing digital/smart meters with traditional electro-mechanical analogue meters results in rapid symptom remission (up to 80% or full recovery).

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## 3. Critical Regulatory Gaps

1. **The 10 kHz – 150 kHz Unregulated "Grey Zone":** Harmonized CE/EMC test standards (such as CISPR 32 / EN 55032) only measure conducted emissions from **150 kHz to 30 MHz**. The 10 kHz to 150 kHz spectrum—where high-energy SMPS noise, transients, and harmonics are heavily concentrated—is left completely unregulated.
2. **Obsolete Thermal-Only Paradigm:** Federal exposure guidelines fail to account for non-thermal biological signaling, voltage pulses, or conducted emissions on indoor wiring.
3. **Inadequacy of Post-Market Filtering:** External wall-outlet filters cannot fully eliminate all complex transient frequencies injected into home walls. The only biologically safe solution is passive electro-mechanical analogue metering.

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## 4. Recommendations for Federal Action

- **Complete Federal Ban on all Smart & Digital Electricity Meters:** Enact a total ban on the deployment and operation of all digital and smart utility meters—including filtered or wireless-disabled models. Mandate a nationwide transition back to non-electronic, passive electro-mechanical analogue meters as the sole biological standard.
- **Mandatory Free Reinstallation of Analogue Meters:** Require utility providers to reinstall traditional analogue meters free of charge for any resident or business owner upon request.
- **Close the 10 kHz to 150 kHz Regulatory Loophole:** Expand EMC standards to mandate strict conducted emission testing and strict limits down to **10 kHz** for all grid and utility equipment.
- **Adopt Non-Thermal Biological Thresholds:** Update federal exposure standards to protect against non-thermal biological mechanisms, including VGCC activation, ROS-induced oxidative stress, and electro-hypersensitivity (EHS).

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## Complete Scientific & Technical References


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