

## JUST SAY ANALOG & NO DIGITAL OR WIRELESS NET METERING!

**What is net metering?** Net Metering allows individuals to be paid for adding energy to the utility grid with digital and also often wireless “smart” meters with “Advanced Metering Infrastructure” (AMI).

### DIGITAL METER & DATA GATHERING METER PROBLEMS:

1. **Mistaken billing:** Research shows up to 582% overbilling from poor electrical design.<sup>1</sup> Algorithms are also suspect for overbilling that’s popularly reported.
2. **Associated risks of fire** due to poor design, poor installation, & moisture & contamination entering the meters.<sup>2</sup>
3. **Prejudicial billing:** Programming of meters can reduce net meter payments, add fees for alternative energy use, or charge varying rates at different times.
4. **Harmful power frequencies:** Digital meters can add frequencies due to a switched mode power supply: instead of just 60 hertz electricity, surges and frequencies like 120 hertz can run along and emit from the house wiring (i.e. harmonics, transients, line noise).
5. **Privacy:** Meters can collect data each second to pinpoint medical devices, vacation, etc., and can turn devices & electricity on and off remotely.<sup>3</sup>
6. **Hacking:** The utility grid has been attacked by hackers and is vulnerable.<sup>3</sup>
7. **Energy Use:** Every meter gathering billing & other data uses extra energy to do so.<sup>4</sup>

### WIRELESS METER PROBLEMS

1. **Associated risks of fire** due to wireless interference or as stated “radio interference with customer electronics, including ground fault circuit interrupters (GFCI) and arc fault circuit interrupters (AFCI).”<sup>5</sup>
2. **Wireless health risks**, especially with “smart” or advanced metering infrastructure (AMI) meters due to the power levels & type of transmission of home meters and extra wireless infrastructure.<sup>3</sup>

### SOLUTIONS

1. **Payment, etc.:** An analog meter is safe. Use an analog meter which simply goes backward when adding energy to the grid so as to subtract from any bill. Or go off-grid and use a battery to store & keep excess energy. In the worst case, allow an opt-in for alternative energy net metering.
2. **Reducing harmful frequencies on wiring:** Switch to direct current (0 hertz) instead of 60 hertz for safer electricity free of extra and harmful power frequencies resulting from digital or poor electrical design. Or, a two-dollar filter would help reduce transients and harmonics caused by a meter, according to testimony by Bill Bathgate on Feb. 13, 2018 before the Michigan House of Representatives.

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<sup>1</sup> Frank Leferink ; Cees Keyer ; Anton Melentjev (2016) Static energy meter errors caused by conducted electromagnetic interference. IEEE Electromagnetic Compatibility Magazine. 5 (4)

<sup>2</sup> Government of Saskatchewan. (2014 Oct 27) CIC Smart Meter Review Makes Recommendations to Improve Crown Procurement: Review Finds Customer Safety Was Not Given Enough Priority

<sup>3</sup> Worthington, A. (2015 Jan 19) Smart Meters—not so Smart: How Dangerous and Expensive Became “Smart” An Exposé of the “Smart Grid.” Weston A. Price Foundation

<sup>4</sup> Guardian Environment Network (2017 Dec 11) ‘Tsunami of data’ could consume one fifth of global electricity by 2025. The Guardian

<sup>5</sup> Pacific Gas and Electric Company. (2010 Jan 31) Advanced Metering Infrastructure: January 2010 Semi-Annual Assessment Report and SmartMeter™ Program Quarterly Report. PP. 6-7 [Copy avail. at EMFSafetyNetwork]