Keeping Modesto Irrigation District electrical rates low has become far more difficult and complicated.

Increased use of computers, electrical appliances and new gadgets has contributed to surging demand for electricity, much greater than the increase resulting from population growth alone.

Our original source of cheap, clean power, the Don Pedro powerhouse, now meets less than 10 percent of MID requirements. This year the Don Pedro turbines will be producing maximum power for many months, thanks to the reservoir being filled by an above-average snow pack. This helps, but what about future years?

MID board members seldom talk about electricity from coal. The dirty truth is that more than 20 percent of MID electricity is produced by burning coal. When board members refer to Farmington, they aren’t talking about the town in San Joaquin County but to Farmington, N.M., where immense amounts of coal are burned to create electricity. We put the environmental consequences of this out of our minds because it’s so far away.

In recent decades, natural gas has become the fuel of choice for MID generators of all sizes. MID recently contracted to buy 30 megawatts of power from a facility being built in Lodi. Gas burns much cleaner than coal but produces nearly 50 percent as much carbon dioxide, which is the major greenhouse gas contributing to global warming. Natural gas fuel has become cheaper in recent years, but the "fracking" method to increase extraction is controversial because of potential water pollution.

Recent state mandates are forcing the MID and other utilities to seek new electricity from cleaner, renewable sources. For the foreseeable future, as the transition is made to clean green power, electricity will be more expensive. Clearly, reducing demand through conservation is the cheapest investment.

MID recently signed a contract to buy the electricity produced at a 160-acre solar plant for 25 years at a price which was not disclosed. I have mixed feelings about that, but at least it's truly clean and as renewable as sunlight.

The latest MID venture into renewable power is more complicated. It involves burning biomass, primarily wood, in huge volumes round the clock, 365 days a year. The privately owned burner would not utilize high technology except for best available control technology to keep pollution within permit limits.

Burning wood, which is half carbon, adds to the buildup of carbon dioxide in the atmosphere. So how does this make sense? Consider that until June 2010 burn permits were issued that allowed plumes of smoke into our skies as agricultural refuse was burned. Those days are over, thanks to new requirements of our air pollution control district. Compared to the traditional burning that we have lived with for decades, having one central wood burning generator which can nearly eliminate most pollutants is a huge improvement.

There is just one problem. As proposed, this privately owned power plant has capacity to consume 375,000 tons of biomass annually. However, according to the just-released initial study, only 135,000 tons of ag waste has been burned annually within 60 miles of the facility in recent years.

This suggests that excess capacity of 240,000 tons per year would create a huge demand for burnable waste. What else would be burned to keep the generators spinning and to maximize the profits of this company? For this facility to burn pure wood, which has been historically burned, is desirable. But to burn solid waste from other sources could produce unacceptable toxic and hazardous air emissions. This plant must be made a more appropriate size.

One more thing we need to know: How much the MID will pay for the electricity from this plant?

The MID board wants to rush the approval process without a full environmental review so that the private owners can receive federal tax money of 30 percent of the capital costs, which is available if the project project gets started this year.
I'm concerned that much of the biomass burned in this facility would not be farm refuse, which would otherwise be openly burned. This private incinerator could be consuming materials from sources that would otherwise be buried, not emitted into the air of the Modesto-Ceres urban area.

Haven't we had enough of shortcuts in environmental regulation? A full environmental impact report of this proposal is necessary.