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## **Analog versus Digital**

What does it mean to be in a analog world versus a digital world?

*Additional submitted attachment is included below.*

## Analog versus Digital

What does it mean to be in an analog world versus a digital world?

Commissioner McAllister in commenting on [Item 3 of Transcript of 02212018 Business Meeting](#), which is the California Energy Demand 2018 to 2030 Revised Electricity Forecast, said:

“I think the move towards granularity of analysis is really positive and could --I think it underscores the importance of updating and continuing to update our data regs. Not this item obviously, but we're going to talk about that soon in this meeting. Getting better data to the forecasting team, to the Efficiency Division. Baking that data such that we can help markets function. All of those things are intimately related to where we go, where the forecast ends up in each cycle. So anyway, we're in --Catherine's long-term view from 1987, you know, we were still back in the analog world back then, right? And now we're in the digital world. And that really changes a lot. And I won't say it changes everything, but it's hard not to say that, because it changes a lot. So it gives us tools. It increases complexity, but it gives us some really powerful tools. So anyway, I want to just congratulate the team for where we are. And this portrait that we've got I think is a really compelling one. But also, I'm thinking about where things are moving to the future and keeping the context as we do what are going to be multiple heavy lifts, moving forward in 2019 and beyond to get to the goals of SB 350. So thanks, anyway. Sorry for the long monologue here, but I think this is among the most important things that the Commission does. And it's not as accessible as many of the other things we do, right? It's not giving away money. It's not running a program. But it is fundamental. It's our life blood. And it's the state's fundamental bedrock information. And so I think it's really important that we get it right. I know the Chair and all my colleagues here know that. But I'm sort of really excited to keep working with staff, with all of our sleeves rolled up, to keep it moving forward in the direction that it needs to. So thanks to the Chair for your leadership on this. And I'm very excited to support the adoption.”

When I think back to 1987 and analog versus digital, there were [CDs that were replacing tape and vinyl recordings since 1982](#). The [Apple Macintosh computer](#) was three years old. Owning a “Personal Computer” was easy and becoming widespread.

Let's now look at something that more closely matches the age of the of the California Energy Commission. In 1975, a 8-bit microprocessor known as the [6502](#) was introduced. The 6502 made computing for the masses a reality. [The first Apple computers used the 6502. Business software was written to run on the 6502 based computers](#) a few years after the introduction of the 6502.

My point here is a “Digital World” had well arrived by 1987.

Perhaps Commissioner McAllister is referring to analogizing when it comes to resource/requirements planning. By this I mean mathematically representing a resource plan or forecast as analogy versus “digital” resource planning being done at the level of the smallest sub-component.

Planning to the hour is still in the “Analog World”. When electricity is sold in five minute units, planning or forecasting by the hour is still just analogizing.

I believe it's time for California's state agencies to move to [Material Resource/Requirements Planning \(MRP\)](#) for all aspects of planning and forecasting. This will save time and money. It will free up human resources.

It's time to move from a collection of spreadsheets that don't talk to each other and are slow to update and verify.

Ever onward,

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