



Cindy Oehmigen

Director of Energy and Corporate Services

## **Solar Power: Why I can't imagine life without it!**

I recently had the good fortune to visit Italy for nine days. I was well prepared for seeing a lot of very old buildings and art done by the Masters over the centuries. I was not prepared for the seamless integration of modern day technologies. Much of it driven by necessity.

Such narrow and winding streets would make it impossible to navigate the cities in typical American style. I am sure there must be some, but I did not see SUVs, pickup trucks, and certainly no limos. Instead the streets were crowded with Smart Cars of varying models. Even one-person size. Granted, they aren't driving long distances. If you are traveling between the major cities, you take mass transit. (In fact, in Venice, there are no cars or bicycles allowed.) There is not nearly enough parking to accommodate even the cars they do drive. Driving something small enough to park perpendicular to the street curb (and still not infringe on the actual traveling lanes) is key. Electric cars are not the rarity we see in the U.S. It is common place. While they are still working on air quality challenges, I suspect the auto traffic is not a big contributor.

A second surprise came to me while traveling the highway through the mountains on our way to Florence. Coming into the city, as we started to see the marks of population, I was astonished at the widespread use of solar power. The factory roofs are flat (not much snow where we were) and covered in solar panels. Almost all of them. Given that Italy is so mountainous, I would image it is difficult to expand and maintain a grid. However, from what I gathered in my research, Italy has a highly successful net-metering solar program. According to Ilias Tsagas, Renewable World Energy, they have about 4GW of net-metering systems. Given that Italy has the highest electricity prices in Europe, that makes sense. There is also strong interest in energy storage systems among Italian households and businesses. Italy as a whole generated 24,676 GWh in 2015 covering 7.8% of the country's electricity mix. To put this in perspective, New York State is about half the size of Italy with about a third the population. New York generated just over 1 Million MWh in 2016. 84% from rooftop panels. The Italians far outpace us for leveraging solar.

Probably driven by high electricity costs, our hotel room was outfitted with a hotel key activated main switch. You leave your Card Key in the device by the door to keep your lights operating while you are in the room. When you leave, you take your key and the lights are deactivated. It took a while to get it figured out, but easy enough. I have heard there are some hotels in the U.S. that have installed this technology. Now I will know when I run across it.

And my last thought on Italian energy and environmental consciousness, they drink a lot of wine. Brought to you by the bright Italian sunshine. Italy has been renowned for their wines for centuries, and therefore have been using solar power for centuries. Long live Solar Power.