

Lessons from the Field

St. Louis Cardinals on Data Tracking

January 2013 – We asked Joe Abernathy, Vice President of Stadium Operations with the St. Louis Cardinals at Busch Stadium, to help us answer frequently asked questions about environmental data tracking at venues. Here's what he had to say.

What environmental data are you tracking?

The St. Louis Cardinals are tracking the Big Three – the amount of energy and water we consume and the amount of solid waste we generate and dispose of. These are the items that have the largest impact both locally on my operations budget and globally for the environment.



Joe Abernathy & the Busch Stadium Green Team Leaders

Joe is on the right, shown here with Hosei Maruyama, Manager of Facility, Security and Stadium Operations and Ashley Moore, Green Team Volunteer Coordinator.

It was fortunate that the Cardinals opened a new stadium just as the focus on sustainable operations of sports venues took off. I remember sitting in the Major League Baseball meeting where the NRDC first agreed to assist the league in this area. Scott Jenkins gave a great summary of his operating data at Seattle's Safeco Field. I said, "I could do that!"

Having a new stadium gave us a clear start for establishing our baseline performance. I did not have to do a lot of searching for data. It was all on our recent utility bills. We established some basic criteria to help make sure we were consistent with our tracking. Now having this history of information is a great tool not only for measuring our environmental performance but for forecasting our costs as well.

What tools are you using to track data?

Initially it was just an Excel spreadsheet to get stuff going. We were just trying to get to a point where it was easy to input data and develop simple summary reports. As I mentioned earlier, the sports industry greening push really came out around 2008. The NRDC Greening Advisor that was developed for MLB was a very good resource. It was there that I found out there were many tools available to help track environmental data. I looked into many of them and kept coming back to

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the tools that the EPA had available—ENERGY STAR Portfolio Manager and WasteWise Re-TRAC. We used those programs right off the bat and have been very pleased with them ever since.

MLB started a push to collect data for all the teams so that we could report on the league as a whole. This is pretty much what you see now in MLB GreenTracks. MLB GreenTracks was designed to integrate with both ENERGY STAR Portfolio Manager and WasteWise Re-Trac.

Some venues are starting to use systems integration and or enterprise management software to create operational data dashboards and some real-time reporting. We've haven't gone that route yet, but are exploring those options.

In what ways has tracking data been helpful?

Data tracking allows you to establish baseline operating data. Then as you continue to track data through the years, you can make comparisons year to year. It helps you understand the operation of the stadium and lets you know if you're making progress against your environmental operating objectives. If you don't measure it, you will never know objectively. You need to measure to manage. The metrics help us know where we're at.

All this data gets tied back into dollars. And, that is where this data tracking can prove to be so valuable to a stadium manager. My management has tasked me with being fiscally responsible. This data can also measure financial performance.

Energy is usually one of the biggest line items on a stadium operation budget. At Busch Stadium, almost 20% of the total cost of operating the stadium is related to energy. With the 6 years of data on our energy use since opening in 2007 I can make a prediction on future energy use; helping to put together our operating budget for the upcoming year. The data, and tools like Portfolio Manager's weather normalization function, helps me analyze variations and make a forecast.

It is great to be able to have that data and be bold enough to go to management and say how much energy you'll need to manage the building for the year and why you have that amount of money in the budget.

There are two important things about measurement: first, having a baseline of consumption to use to compare year to year at your own building. This is enough to make it worthwhile for any stadium, any arena, any operator. The second is being able to compare with other buildings.

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What kind of consumption reductions and dollar savings have you seen since you started tracking?

Overall we have seen a 20% reduction in our energy use since we established a baseline of operation in 2007. Our dollar savings over that period was only 7% since the cost of energy has increased each year. This data was very helpful in budget discussions with management. I had 6 years of data to demonstrate to management that our energy conservation efforts were more successful than the cost showed. Still, with all that said, we have over half a million dollars in energy cost savings since 2007.

Throughout the data tracking process, what has surprised you most?

You can tell by my other answers that I've been most excited by simply having the information available and creating summary reports. It helps you make decisions and communicate to others the state of your current operations and that you are doing a good job managing costs; I have the data to back that up.

What surprised me most was the fact that about 1 ¼ pounds of solid waste is generated for each attendee at Busch Stadium. I never thought about it in that manner before; that each fan leaves behind that much trash, and most of it at their seat. That is enough trash to fill an average size plastic grocery bag for each fan or if we piled it up on a baseball infield, it would be about 2 feet high, for every game! Imagine that; a two foot high pile of trash from baseline to baseline...that is a lot of trash. And now think that at Busch Stadium we can recycle almost a third of that solid waste! When you put it that way you can visualize the impact that recycling can make. I never had a good sense of that until we measured it! That was a big surprise for me!

What's next in your data tracking journey?

Benchmarking—accurate and meaningful benchmarking to allow us to compare venues to one another. I look forward to the day when we have enough venues with verifiable databases to allow benchmarking between venues and establishing an ENERGY STAR Rating for sport venues.

There is not a lot of consistent sustainable operating data out there right now in regard to sports venues. ENERGY STAR Portfolio Manager has done great things to help building operators in other industries benchmark and rate their facilities.

I look forward to the same thing for the sports industry. Then we can use the data to do more detailed analysis and better understand how we can use these critical resources like energy and water more efficiently. That is why organizations like MLB, the Stadium Managers Association and the Green Sports Alliance are encouraging teams and venues to collect and track environmental data.

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So if you have not started collecting and tracking your data, make it a goal for 2013 to do so! It is not as hard as you think and there are plenty of resources available through the Alliance and EPA websites to show you how to do it.

If you're interested in finding out more about data tracking, please contact:

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