•Thanks for attending, intent is to pass some good information to you on this subject matter

•Only 13 slides so although there is good content, it cannot be super detailed. We will be following up with each of you and can provide copy of materials as well as more detailed information on any element.

•We have reserved time at the end to answer questions. Please pose them as we go along via the “Q&A” button along the header of your screen and we will read as many as we can get to at the end. This webinar, including the Q&A, will be posted on our website as well.

•Why is Powerit talking to you about this subject and why do we think we are qualified?

•We make and implement an energy management system that enables end users for real-time control targeting savings on the major electrical cost issues and incentives such as peak demand, demand response, TOU pricing, real-time pricing etc.. We have created solutions specifically targeted at F&B sites, knowing how critical it is to prioritize production issues.

•Over 100 systems in mfg here in the US and over 500 sites in Europe. Our solutions are accepted by end users and utilities alike throughout US, Canada and Mexico (as far as NA goes)

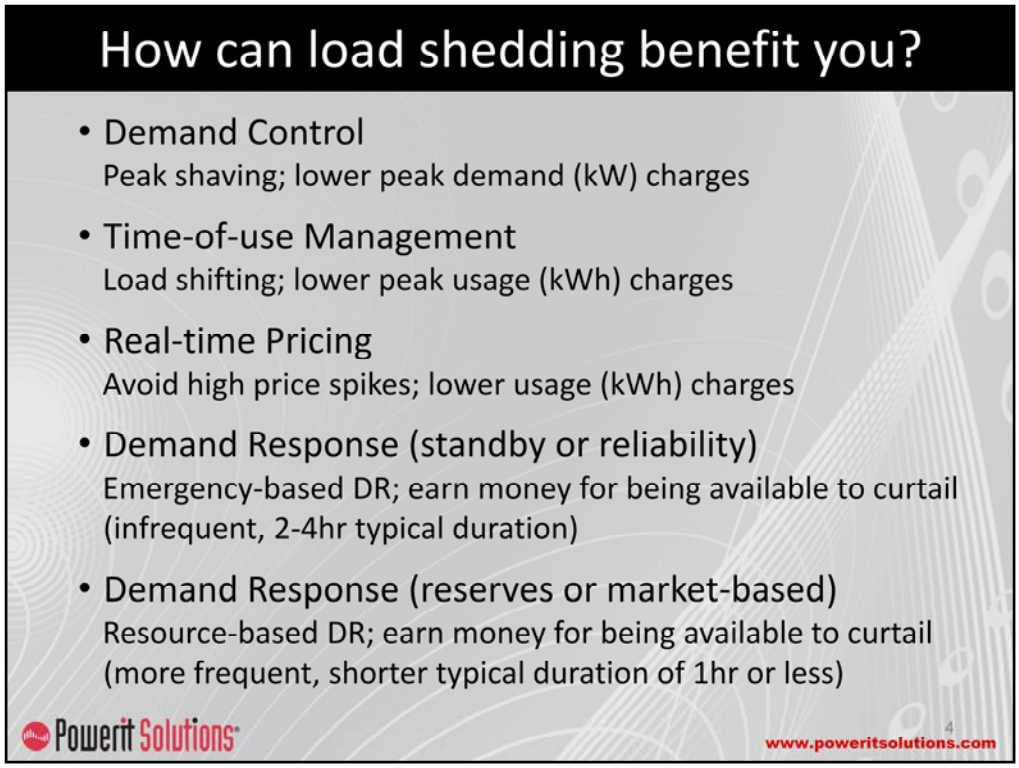
•Company is a primarily made up of technical folks; development engineers, factory automation folks, energy expertise ---- all focused on product application.

•Bob Zak – 20 years in plant automation, 9 years in working with plants on energy issues

•Jim Peterson – 25 year refrigeration industry veteran as a design engineer and consultant to the food & beverage industry

•Another qualification; proud to share that we have worked with real top-notch well known and not so well known companies.

•The biggest and best confirmation we can get is that many have relied on us more than once.



•Seminar is about load shedding because we believe this to be one of the bigger opps for food & bev facilities

•We always measure these opinions vs. the tangible benefits so a discussion on some of the more common drivers for load shedding and their benefit makes sense. They each have their strengths and challenges and it is important to know so you can build a strategy/plan that fits your site best.

•DC – Monthly peak shaving, this is typically 15-30% of overall bill, we shave 10-30% and paybacks are positive usually 18-20months or less. Savings come from lower demand charges.

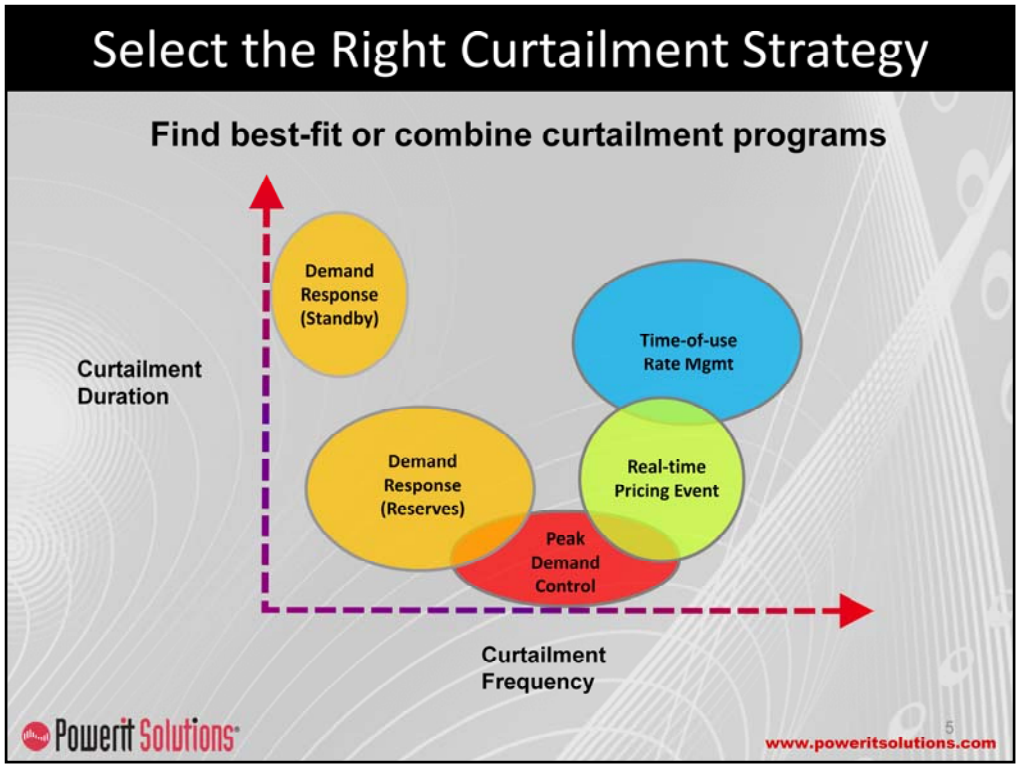
•TOU – Savings come from managing power to emphasize usage in non-peak times. Often referred to as "load shifting".

•Real-time pricing – Increasing measure from the utilities, allows them to raise (and lower) rates base on where it comes from. Can be 24, 8, 1 hour or even 10 minute notice. With RTP it is about shifting what you can to the lower priced period as well as avoiding as much as you can during the super peak.

•DR (standby/reliability) – "Call-type" where participants commit load reductions, used when grid peaks are a problem, someone pays a penalty for non-performance, $30-60K per MW of committed participation

•DR (reserves or market based) – "quote-type" where participation is usually voluntary. Participants decide on a daily or even short notice basis to participate. Market dependent but typically around $40K per MW.

•Important to understand what is available in your region --- you can ask Powerit

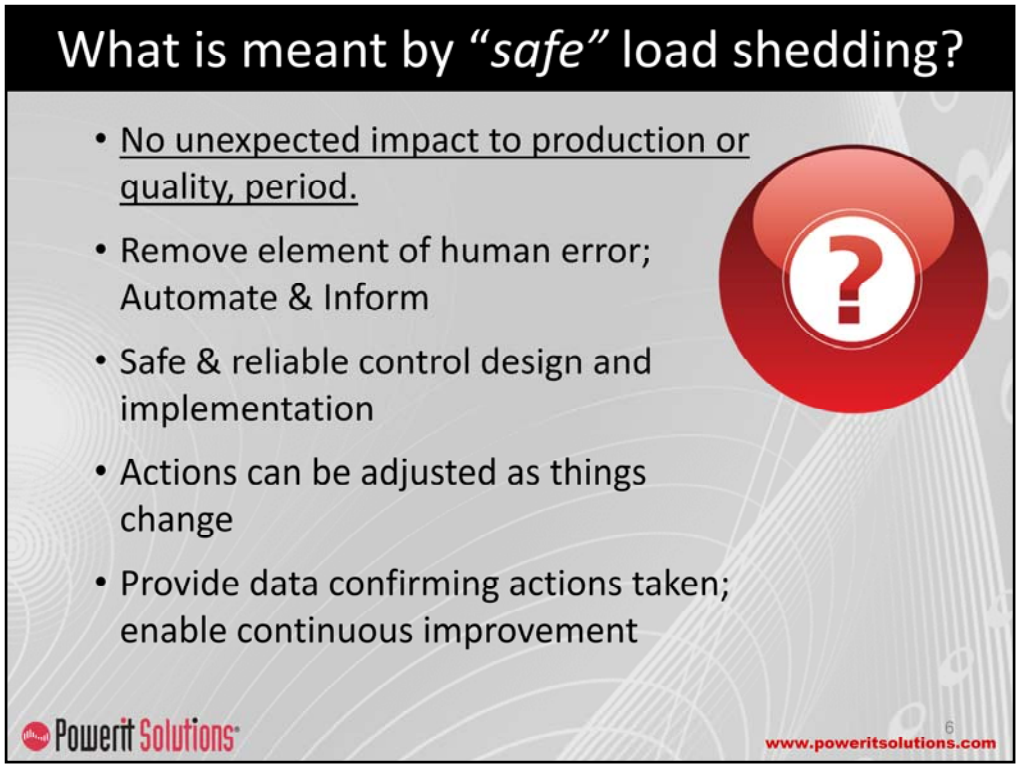


•All of these curtailment initiatives have a value stream and characteristic set that must be considered relative to your site's situation.

•A best-fit strategy may combine two or more available programs.

•This chart shows how they can be different from duration and frequency standpoint. Need to consider this in your planning.

•A strategy that does combine them makes an even stronger case for automation. Otherwise you could have strategies that are not working in conjunction and have benefits cancel one another out. For example demand control, not done properly could affect DR earnings.



•The title of this seminar references "safe" load shedding. We know "safe" load shedding is the only type of load shedding that is acceptable to food & bev plants. So, what is "safe"?

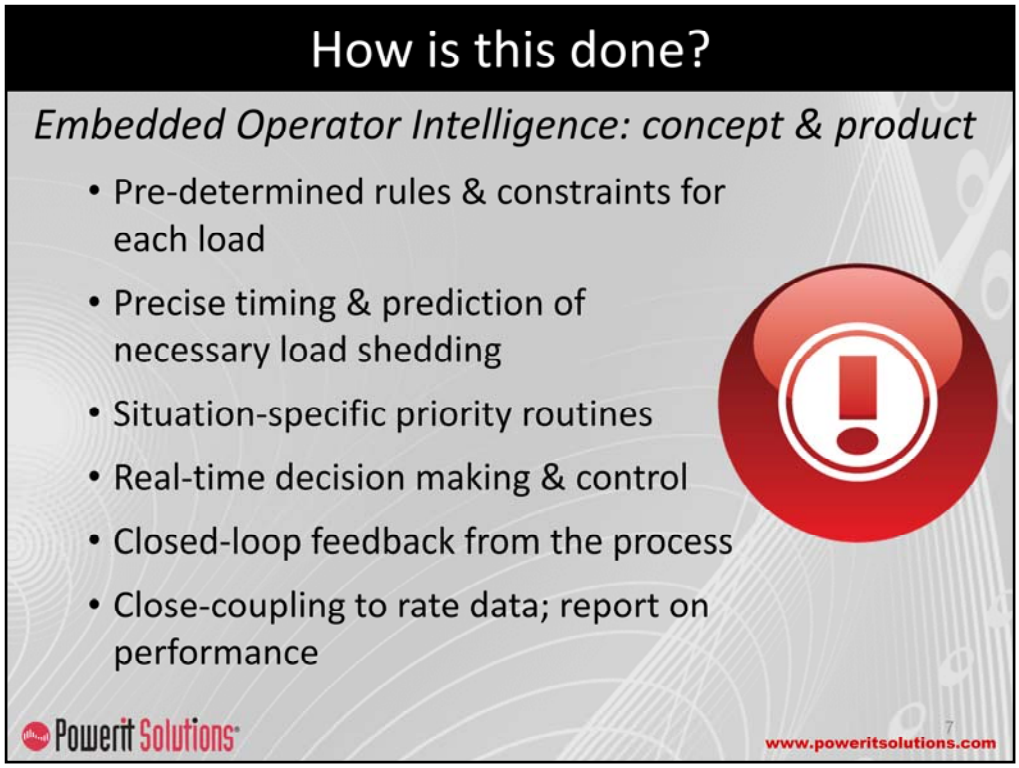
•No UNEXPECTED impact to product or quality. With peak demand charge reduction, there is almost never a designed impact to product; very much designed to operate and create expected savings with NO impact to production. Demand response, on the other hand, almost always incorporates some give and take. Safe means that the give and take is exactly as desired, no more, no less.

•Load shedding must include automated actions that limit human opportunity for error. Baseline example.

•The system must be integrated and provided such that is does not CREATE an element risk via down time. A safe design and reliable product.

•Load shedding must be implemented in such as way that the strategy can be modified as necessary since often "things change" in manufacturing.

•Good data must flow on the performance. Both for justification ("safe investing") and for continuous improvement.



•How is SAFE load shedding done?

•The concept of embedding the intelligence of an operator into any EMS system. Done with all the right considerations but much faster and more reliable.

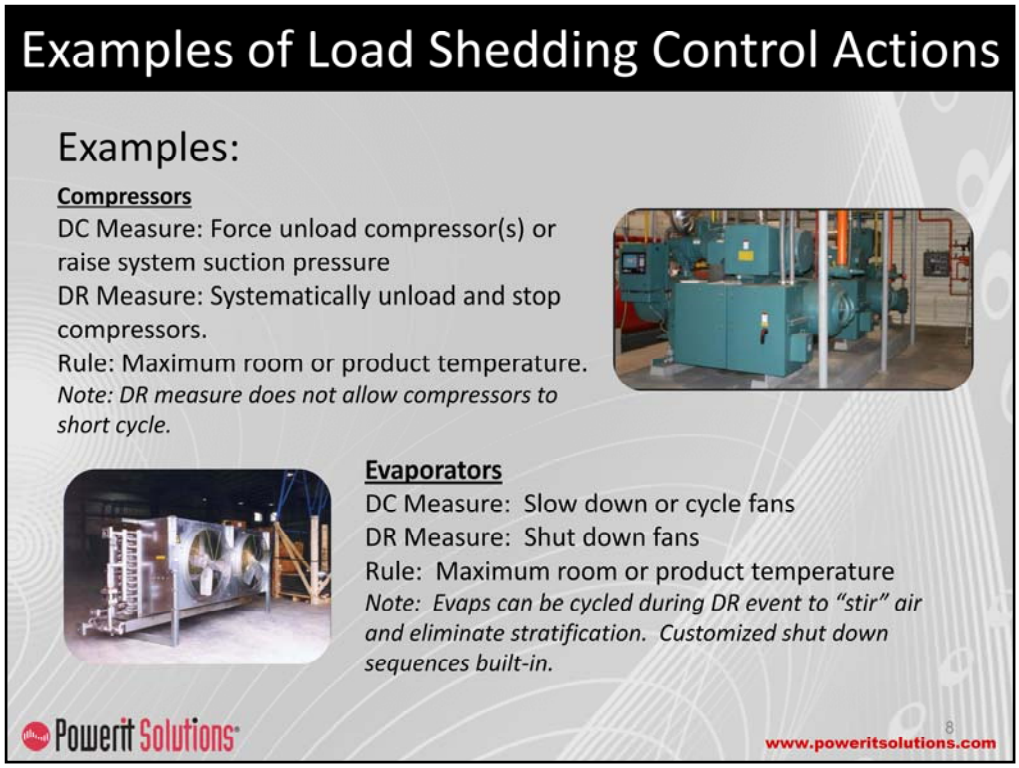
•Must be able to time the load shedding (not just time of day or year but exact moment to start) as to minimize impact to plant / maximize savings

•Rules must be flexible enough to integrate external factors (harvest, product/outdoor temp, product combinations) that drive production situations

•Must operate in real-time; instant reaction to meter data, sensor feedback

•Closed-loop control; temperature, pressure, humidity --- these all are important feedback points

•All of this must relate to the billed amounts; that is the ultimate measuring stick; must be compatible with all different ways you are billed and will be billed. Then provide performance data to anyone for positive reinforcement and increased dedication to working hard at it.



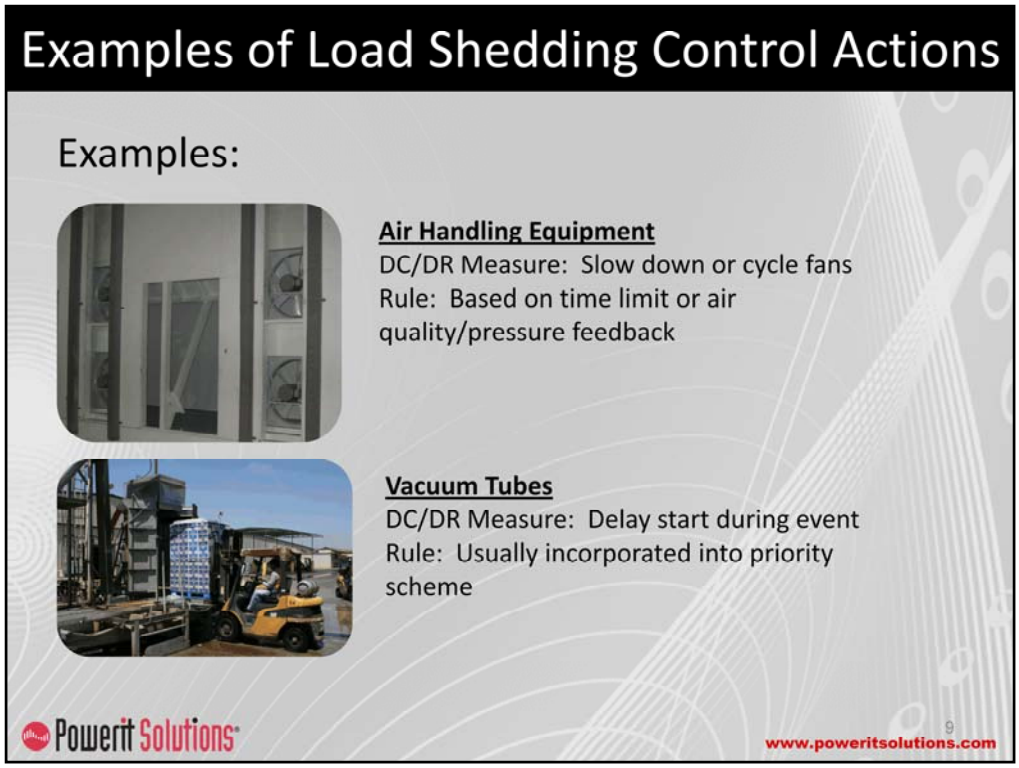
Jim will now go into some greater detail on specific types of F&B equipment loads and the consideration of them for load shedding

In plants that have refrigeration systems, usually 40-60% of the entire plant electrical load, so a good first place to consider.

Compressors – typically 200-500 HP so big power users and provide good opportunity to shed or save power. Most compressors are screw type with microprocessors – easy to communicate with as-is or by adding communication board. During a DC situation, this provides ability to unload the compressor slide valve or raise the suction setpoint, also unloading the compressor. Occasionally, VFD's are installed to provide capacity control via compressor speed. Note: compressors mechanically unload very inefficiently.

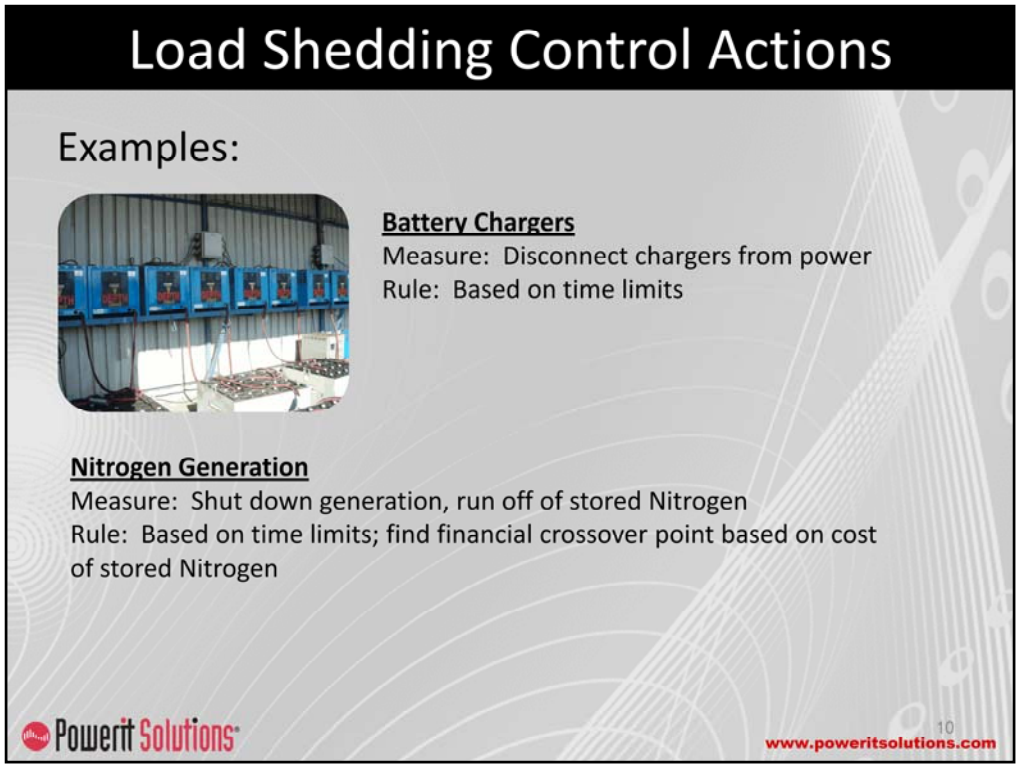
For DR, the only way to shed large block of power is to turn off compressors. This requires systematic unloading and stopping compressors. Because space or product temperature is usually the critical criteria, compressors will be started to protect the specific rules.

Evaporators are throughout the facility, using a lot of fan power to transfer the heat from the product or space temperature. For DC, fans will be slowed down or turned off. Many/most evaporator fans now have VFDs for energy efficiency (fan affinity laws); VFD's provide simple, convenient method of communication with control system. DR will require that fans are turned off, although can be cycled to stir air and avoid temperature stratification. ALWAYS – rules apply and will protect production or space temperature.



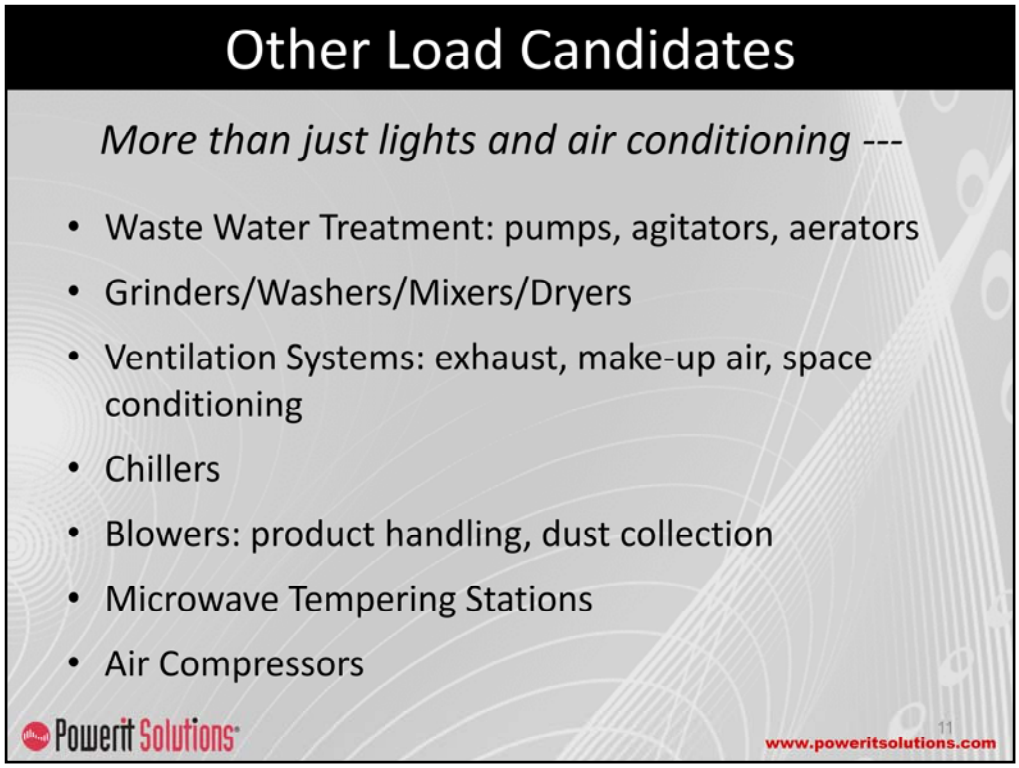
All facility fans, 10 HP and larger, have good potential for shedding electrical load. Again VFD's are common and provide power savings (fan affinity laws) plus easy to control and communicate with. If no drives, then stop fans per the control system rules. Rules are plant determined.

Vacuum tubes familiar to fresh produce processors. Large electrical load that can be controlled, based on priority. Start-up schedule is controlled based on high demand period (DR) or cost (TOU).



Many processors and cold storage companies surprised by amount of power required to charge forklift batteries. Common to be above 100 kW. Key is to move battery charging to off-peak electrical costs. Important to understand different styles of charges – standard, rapid charge, opportunity charge.

Nitrogen is used to guarantee hygienic packaging and preservation. In-plant nitrogen generators replace trucking nitrogen in to a storage tank but there is typically a back-up storage tank. During high power costs or DR, stop nitrogen generation and work out of the storage tank. Do not short cycle generation equipment.



There are many loads in a processing plant.

Any load that can be temporarily stopped or lowered, available for DC;
Any load that can be shut down for 2-4 hours, available for DR.

This is not a complete list but is a good starting point to identify all potential electrical loads. And the rules are always to protect production or environment conditions (temperature, air quality, personnel safety, etc)

It All Boils Down to ROI

Anchor Warehouse

- 35% Decrease in Peak Demand
- 13% Reduction in daily kWh usage, while production increased 15%
- 17% Savings on Energy Bill
- ROI Immediately upon installation

Amy's Kitchen

- 150kW decrease in Peak Demand (approx 10%)
- 580kW available for Auto-Demand Response reduction (approx 44%)
- ROI: 6 months

Mission Produce

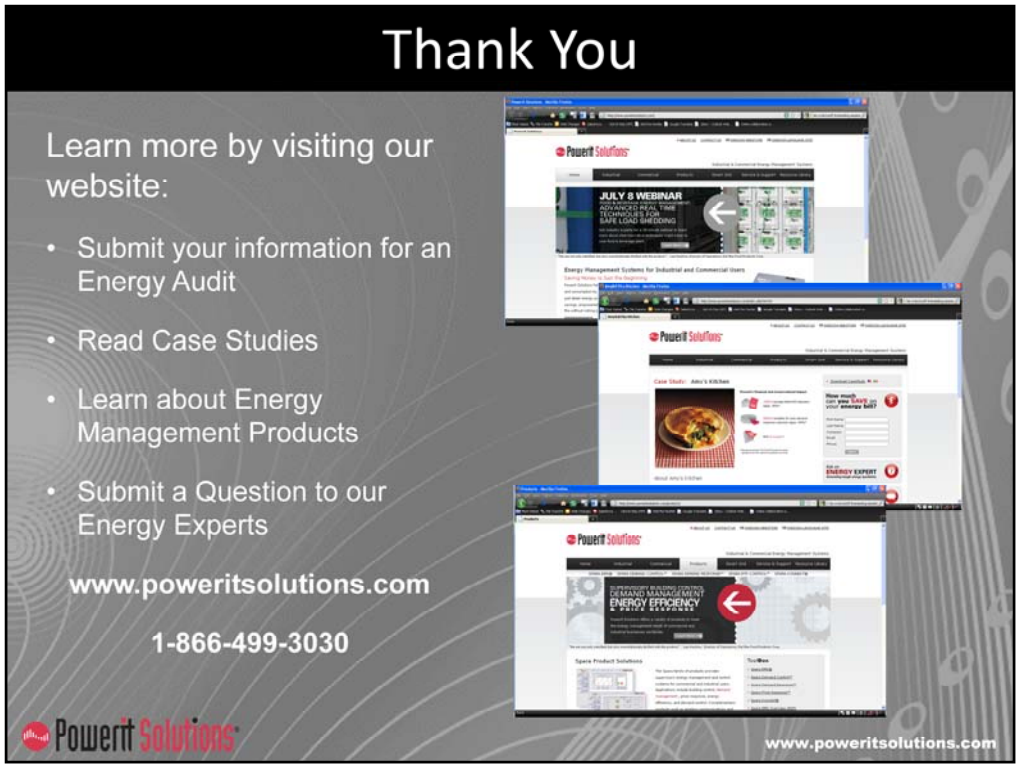
- 279kW decrease in Peak Demand
- 500kW available for Demand Response
- 141,112kWh first year savings
- ROI: 20 months
- Significant operational improvement

Powerit Solutions

12

At the end of the day, it comes down to return on investment.

Case studies, we have more, we will be seeking more. It is a great learning and qualification tool for plants to use when selecting vendors.



Thanks. Lets take some questions. We will reaching out to you via email with an offer for some materials relative to this discussion today.