CHARGING FORWARD

Challenges of air quality standards, compliance and new equipment

By MICHAEL WAGNER, CSP, ASM

Analyzing and preparing your fleet objectives is a key component of any operational business strategy for a snow and ice management company. Whether it is purchasing equipment with newer and more efficient technology, better safety features, or reducing the overall lifecycle costs, the transition of old to new equipment provides many benefits.

With all these considerations, another big development may change the way businesses prepare and procure their fleets: the transition to electric equipment.

Industry regulations

Across North America, regulations regarding the size and type of equipment that must be transferred to electric power have already started to be put into place. One of the more frequent methods of regulation is based on the size of the equipment (e.g., everything 25 horsepower and below must be switched to battery-powered electric by a certain year).

It is common to see public entities like municipalities and parks and recreation departments having to abide by these regulations first; but in many cases the regulations still affect private businesses who subcontract for public or government entities. For example, a private contractor that performs a full-year inclusive maintenance contract for a small town may have to adhere to all regulatory efforts in a timely manner.

Another situation that could impact a private snow and ice management company is local and state laws. It doesn't necessarily matter if you are a public or private entity; if you work in a specific zone and have equipment that falls under these regulations, you may have to adhere to them.

When it comes to the snow and ice industry, the regulations may look slightly different. In an effort to reduce greenhouse gas emissions and the environmental impact, states or municipalities are implementing air quality standards and regulations that focus on the summer season when ozone levels are reportedly higher.

So, you may wonder if such regulations will only affect your landscaping equipment; and the answer is: it depends. In some areas and regulations, it may only affect mowing equipment and work being performed in the summer. In other regions, it will affect operations year-around and may change how you spec multi-purpose equipment that's used for both summer and winter work.

The challenge for snow and ice management companies is going to be understanding the regulatory

PROS

Following are some pros of transitioning or adding battery-powered equipment that you must begin weighing when making business decisions:

- Noise reduction versus traditional gas- or fossil fuel-powered equipment
- Increased productivity and efficiencies from new style electronic components and sensors
- Better use of telematics and GPS locating/servicing
- Reasonable availability of different options
- Standardizing sections of your fleet to build more reliable charging stations and battery pack systems
- Improved warranties on batteries and electrical components
- Retaining and gaining specific clients that prefer or are required to utilize this type of equipment
- Reduced greenhouse gas emissions onsite

CONS

Some cons of battery-operated equipment are specific to the industry, difficulty in planning for financing the transition and understanding lifecycle costs:

- Cost of equipment is a challenge since switching from a gas-powered to a battery-operated snowblower can cost about 50% more
- There isn't a tremendous amount of research and data showing performance and overall lifecycle costs (future and dependability unknown)
- There aren't many environmentally conscious ways of disposing or recycling the special batteries and electrical components
- The production of equipment and materials to build them can negatively impact the globe
- Compliance dates and measures are hard to meet, and meshing your operations with the regulations can be a difficult and lengthy challenge

requirements in their given region, especially those that have a multistate or wide geographical disbursement.

Equipment options

Given the varying air quality standards and regulatory changes and differences across North America, let's focus on smaller equipment such as backpack and handheld blowers, snowblowers, small ride-on equipment, etc. Think of that 25-hp mark and the relevant equipment underneath that.

Battery-operated equipment is nothing new. Smaller handheld equipment like backpack blowers, string trimmers, hedge trimmers and more has been available in battery-powered format for years and has shown many benefits in certain applications while keeping up productivity.

Dealer support

Traction is starting to take hold in the snow industry for using electric equipment as companies demo electric equipment from dealers, or even run pilot programs to examine options, lifecycle costs, dependability and productivity.

When it comes to common equipment like battery-operated backpack blowers and snowblowers, manufacturers are really focusing on the testing and sale of this equipment. Naturally, demand is increasing given the regulatory changes.

Bottom line

When you consider the pros and cons of battery-operated equipment and the regulatory changes, the resistance to change is valid. The challenge will be to understand how you can make it happen and still be successful.

The reality is that many companies don't have a choice and will need to comply to retain work and client relationships. You must heavily weigh the pros and cons and how the equipment fits into your operations; and stay ahead of regulatory and compliance deadlines so you're not left behind in this competitive industry.

Consider the 3 Ps—people, profit and planet—when making your decision:

- Effect on employees, clients and other stakeholders
- Continuity and profitability of the business
- Environmental impact and how that corresponds to your company objectives

This isn't a decision to make swiftly. Deep and hard thought should go into the planning efforts among organization and supplier personnel to make the transition as effective as possible. SB

Michael Wagner, CSP, ASM, is Director of Operations at Designscapes Colorado Inc. Contact him at 303-328-5554 or mwagner@designscapes.org.