

CASE STUDY Delta Controls PDS (Professional Development Services) & Stasis Energy Group

Empowering: OEM Innovation with Scalable Controls

At Stasis Energy, we are dedicated to solving disparate cost and sustainability pains for the built world. We are the pioneers in delivering load flexibility through thermal storage, moving the needle faster and more affordably than any other product in HVAC history.

Background

Stasis Energy Group is an original equipment manufacturer (OEM) pioneering the use of thermal storage in rooftop units through proprietary phase-change material (PCM) technology. Their passive PCM module, installed directly in ductwork, absorbs and stores cooling during normal operation and releases it during peak demand hours to reduce energy consumption. To deliver this capability as a repeatable, OEM-integrated product, Stasis partnered with Delta Controls and the Professional Development Services (PDS) team to embed Delta's control logic within their offering.



Challenge

As an OEM, Stasis required a controls platform that could not only optimize the performance of their passive PCM technology but also be packaged and deployed as part of their product offering. Their initial RTU control database lacked consistency, intuitive organization, and the programming logic needed to sequence operation around PCM discharge cycles.

To support scalable commercialization, they needed a clean, repeatable template that allowed their technology to be installed rapidly across varied sites without building new graphics and systems from scratch each time. Further they needed an intuitive user experience interface that would allow occupants to easily control their comfort without facilities dashboards or engineering knowledge required.

Approach

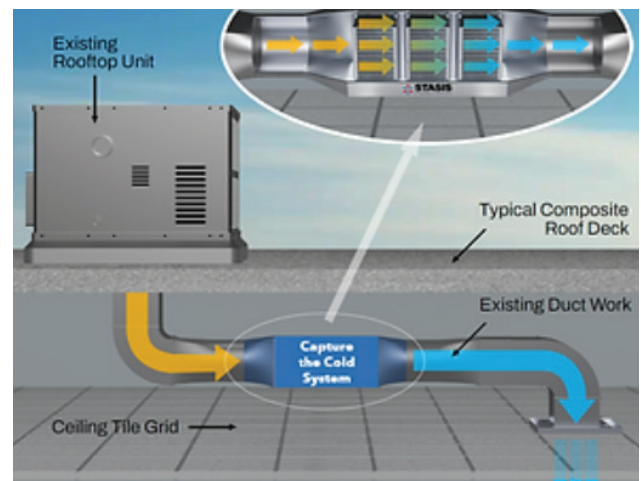
- **Configurable RTU Control Template:** A single database adaptable to A/C-only or heat pump configurations, enabling consistent deployment across multiple sites.
- **Peak Load Reduction Logic:** Custom GCL+ programming sequences compressor use based on real-time indoor and outdoor temperatures, minimizing energy usage during utility peak hours.
- **Branded Mobile Interface:** A mobile-responsive web graphic, designed for occupant use, provides intuitive setpoint control without requiring access to facility dashboards.
- **API-Based Energy Data Integration:** Rooftop unit energy meters feed data into Stasis' own tools through automated API workflows, allowing them to validate performance independently.
- **Scalable Support Model:** With a time-and-materials agreement in place, PDS functions as an engineering partner, offering programming support as needed while allowing Stasis to retain control over their systems and IP.

Outcome

- **OEM Integration Success:** Stasis now deploys a refined control architecture as part of their packaged solution, seamlessly embedding Delta Controls into their proprietary offering without end users needing to maintain Delta Controls knowledge.
- **Repeatable Deployment Framework:** The PDS-developed RTU template allows Stasis to roll out new installations with minimal configuration changes, dramatically reducing engineering time.
- **Intelligent Load Shifting for Energy Savings:** With custom thaw-cycle programming, the system reliably prioritizes passive cooling during high-cost periods, meeting the energy savings promise that Stasis offers its clients.
- **Empowered End-Users:** The app-like interface brings modern usability to non-technical users in community centers and schools, without compromising control reliability.
- **Long-Term Flexibility:** Stasis maintains full access to their database and logic. They can self-deploy or request support as needed, reinforcing the open, cooperative nature of the Delta Controls platform.

Conclusion

This project exemplifies how Delta Controls and PDS empower OEMs to bring their own innovation to market without compromising control, usability, or ownership. By supporting Stasis Energy Group in packaging their IP as a complete, repeatable HVAC solution, PDS helped translate thermal storage technology into scalable, real-world deployments. Together, we delivered not just a building automation solution but a complete product platform.



About PDS

Professional Development Services is a key strategic initiative for the Delta Controls family. Along with the integration tools and platforms, Delta Partners no longer have to say no when a client needs to differentiate themselves. We dare our end users to think differently and not compromise with off-the-shelf solutions.

Work with the experts

The Professional Development Services team is comprised of a diverse group of individuals, each with their own expertise. We have the skills required from graphics design and system integration to low level programming. Each Engineering Service Specialist has direct access to the designers and developers within Delta – enabling them to go right to the source of the system.

Leverage our experience

Since its inception, PDS has worked with the Delta partnership to complete many projects, large and small. Whether you are looking for some assistance with a new product you have not used before, or just need a hand getting some last minute work completed on schedule, Professional Development Services is the solution.

pds.deltacontrols.com

About Delta Controls

At the forefront of building automation systems, Delta Intelligent Building Technologies provides global solutions through its network of Partners in 80+ countries. Focusing on innovation and sustainability has made the company industry leaders for over 40 years.

Delta Intelligent Building Technologies manufactures all products in Metro Vancouver, Canada, offering dependable, user-friendly control solutions for buildings in the commercial, healthcare, hospitality, education, and leisure markets. As part of Delta Electronics, Delta Intelligent Building Technologies is committed to leading building automation into a sustainable future.

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