

Energy Services to Meet Your Needs

The BuildingIQ Way

BuildingIQ 5i platform and services have a core set of data analytics, modeling, measurement & verification, and optimization technologies —purpose-built applications and managed services—that deliver value at any stage of a building's lifecycle. Deployed for individual buildings or a global portfolio of properties, BuildingIQ energybased insights and services drive three key factors that benefit:

- 1 lower, more optimized energy use,
- 2 greater operational efficiency, and
- 3 improved tenant comfort.

These three powerful factors interact naturally and benefit and address the energy related needs of property owners and operators worldwide by:

- increasing operating margins, property resale or leasing value, and brand equity;
- simplifying regulatory compliance, and
- providing the modeling, predictive analytics, insights, and closed loop control.

The BuildingIQ platform learns and evolves with your building's needs or that of your portfolio of buildings. Deployment occurs once, when you engage with BuildingIQ, giving building owners and operators an ability to select the services that best solve today's problems, and then easily add new services to tackle tomorrow's demands.

Benefits to Building Owners and Operators

BuildingIQ is offered on a subscription model and eliminates capital expenditures and risk We stand by the value and savings we deliver.

BuildingIQ's Energy Services:

- save energy, lower the cost of operations, and increase tenant comfort in buildings,
- are deployed once for the lifetime of a building or a portfolio of buildings, and
- get smarter everyday.

BuildingIQ's Managed Services:

- act as a remote management and monitoring team that augments existing facility groups to deliver an optimal balance of energy efficiency and tenant comfort,
- offer repeatable, sustained and verifiable energy savings, and
- evolve to provide cutting edge services for the life of the building and become a long-term trusted advisor to property owners and managers.

Building Operations Services



Facility Worksite

Facility Worksite increases the productivity of the facilities team. Rapidly as a SaaS solution for work order and preventative maintenance management, Facility Worksite streamlines the day-to-day management of facilities-related activities for a single property or a portfolio of buildings. The solution focuses on simplicity —speed of entry, straight-forward scheduling and task management, and ultra-fast deployment— to enable facilities teams to track all the projects related with the site(s) at the various stages of completion, associated costs, equipment, the team member responsible, dates, milestones, and related external vendors. External vendors can be easily added to the platform, as users, so that they can add information directly into the projects and provide updates.



Systems Enablement

Systems Enablement professional services aims to upgrade HVAC controls related infrastructure in buildings to enable these buildings to perform to their full potential. Enablement services may encompass hardware upgrades, software upgrades, programming, installation, personnel training and configuration of control related equipment.

HVAC Controls **Retro-Commissioning**

HVAC Controls Retro-Commissioning services ensure optimal configuration of a building's HVAC controls systems. It includes assessment, diagnosis, adjustment and validation of HVAC and BMS controls in a building. Retro-commissioning is often an essential step in optimizing any BMS that not been optimized one or more years -no matter the building's LEED or NABERS level.



Comfort Command handles all the comfort related calls from tenants. The service is essentially turnkey, including labor and associated infrastructure to implement and handle inbound communications, assess and dispatch issues, and record resolution based on defined workflows. Comfort Command unburdens overstressed facility teams and let's them focus on making the building operate more smoothly and efficiently.



HVAC Continuous Commissioning leverages the predictive analytics from BuildingIQ's 5i platform and building engineering expertise to provide ongoing anomaly and root cause detection, proactive control strategy recommendations, and system maintenance with 24x7 support for controls questions or performance concerns.

Measurement & Verification Services



Energy Worksite is an advanced Software-as-a-Service solution that helps building owners/operators lower energy, water and gas use through accurate baselining, estimated consumption, and enhanced visibility into usage and the effectiveness of energy-saving initiatives. Configurable dashboards enable users to focus on anomaly detection and/or energy savings measurement and verification — providing a continuous delivery of knowledge and insight into how a building is using energy.

Energy Worksite also enables tracking, analysis, aggregation, modeling and reporting of energy data at the enterprise, facility, meter, and submeter levels. Performance is calculated hourly and incorporates weather data and time of the week use to calculate expected consumption for a building. The actual consumption is compared to the expected consumption to determine a performance rating and calculates savings or loss. This solution is ideal for medium sized buildings of ~100,000 sq. ft. or less with limited building management systems capability.



Automated Measurement & Verification (AM&V) is a deploy once, use-as-needed solution that enables building owner/operators and tenants to participate in many incentive-based performance programs without having to repeatedly engage with an outside service. Utility approved, BuildingIQ's AM&V has shifted the paradigm of Measurement & Verification to the cloud. We automate the M&V process while providing the necessary transparency for verification and compliance with IPMVP. By leveraging our real-time data collection, data science expertise, and powerful cloud computing, AM&V is the first true software-only measurement & verification solution that provides utility-grade reliability, repeatability, and scalability.

Ga **Predictive Energy Advisor**

Predictive Energy Advisor (PEA) delivers a daily report forecasting tomorrow's energy spend hour-by-hour, providing the knowledge to control your building's future power usage. PEA leverages the 5i Platforms advanced modeling and can be rapidly deployed. It goes beyond a typical dashboard with a forward-looking usage prediction based on your building's historical consumption patterns, normalized for weather. When combined with an hourly weather forecast, PEA provides a customized and highly accurate energy usage projection for the day ahead that augments your facility team's capabilities with data driven knowledge.

Predictive Control Services

BuildingIQ's Predictive Control Services close the loop for advanced, cloud-based energy services. These services take full advantage of every piece of BuildingIQ's unique Buildings IoT approach —data gathering and analysis; advanced, adaptive modeling; measurement & verification; control, and human expertise. Each is a virtuous, learning service that improves with time and use to lower energy costs, drive out operational waste, and increase tenant comfort.



BuildingIQ provides a technology-enabled managed service approach for buildings to participate in and respond to demand response and peak demand reduction events. Buildings can be configured to respond automatically through OpenADR calls to DR events, or operators can choose to manually schedule DR events. Either way, the BMS itself has been optimized for the event in advance thanks to Building Q's predictive analytics and closedloop control sequencing. Unlike most DR solutions, HVAC control sequences implemented by BuildingIQ automatically maximize energy reduction targets, tenant comfort, and BMS responsiveness and capability into a series of automated actions.

Predictive Energy Optimization

Predictive Energy Optimization, or PEO, is BuildingIQ's premium service. PEO is like a 24/7 demand response undergoing a machine learning evolution cycle every 4 hours, capable of being "tuned" by such higher level goals as maximizing productivity or minimizing energy spend. PEO incorporates weather forecasts, dynamic pricing and per-zone comfort requirements to automatically execute the most cost-effective and comfortable operating plan for each individual day. The advanced sequencing generated by PEO track the BMS's ability to adhere to comfort bands, makes minute-by-minute adjustments, and works even better as your BMS evolves and improves.

Value to Our Customers in 3 Ways

Energy Savings

BuildingIQ delivers proven, repeatable energy savings with data driven services ranging from M&V to control and optimization.

Operational Efficiency

Collaboration between BuildingIQ's remote building experts and your on-site facility team combine data analysis with inside knowledge to produce insights that identify anomalies in real-time and continually optimize BMS processes.

Tenant Comfort

BuildingIQ's ability to optimize tenant comfort through advanced, predictive analytics and real-time control have resulted in lowering hot/cold calls by as much as 25%.





Reduce Energy Spend Without Sacrificing Comfort

In a wide range of installations, BuildingIQ has consistently demonstrated it can reduce HVAC energy consumption and costs by 10-25%, while maintaining occupant comfort levels —even in buildings rated as highly energy efficient by LEED, ENERGY STAR®, and NABERS.



Technology With a Human Touch

BuildingIQ's 5i Platform has deep capabilities in data ingestion, aggregation, monitoring, trending, predictive analytics, visualization, automation and optimization of HVAC energy usage and consumption. Human expertise informs BuildingIQ's unique energy data analytics to provide the basis for identifying operational and equipment anomalies.



Add Intelligence to Your Building

Traditional approaches to making buildings smarter focus on only two factors: cloud computing and sensing. BuildingIQ's services and platform is

comprised of five major components: data capture and analysis, modeling, measurement & verification, control, and human expertise. Incorporating these five components constitute a more comprehensive approach to the Buildings Internet of Things.



Proven Solutions

• Parts of BuildingIQ's technology platform were originally developed by CSIRO, Australia's national lab and inventor of WiFi. Our customers include major property owners, real estate funds, corporations, and government organizations, which have deployed the system in a variety of buildings.

About BuildingIQ

BuildingIQ (ASX: BIQ) helps building owners and operators worldwide lower energy use, increase building operations efficiency, and tenant comfort. The company's 5i cloud-based platform and managed services deliver on the promise of IoT for buildings with none of the drawbacks. Investors in BuildingIQ include the Venture Capital unit of Siemens Financial Services, Paladin Capital and Exto Partners.



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