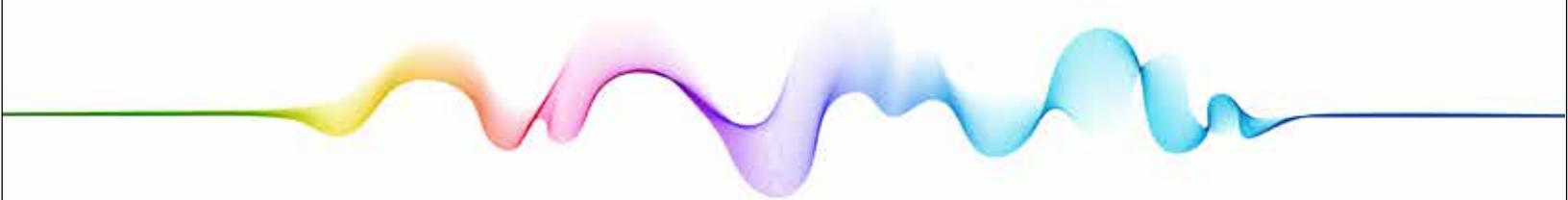


I N S I G H T R E P O R T

AN OVERVIEW OF ENERGY EFFICIENCY SOLUTION COMMERCIAL MARKET



C L I M A T E S C I E N C E



TAG Insights Report: An Overview of Energy Efficiency Solution Commercial Market

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Introduction

This TAG Insights Report on *Energy Efficiency Solutions* is intended to help companies, managers, practitioners, researchers, investors, and commercial vendors better understand current trends, issues, and market opportunities in this area. A list of representative commercial vendors working in various areas of energy efficiency solutions is included. The five specific areas covered in this report include:

1. Building Energy Management
2. Smart Grid and Energy Storage
3. LED Lights/Energy-Efficient Appliances
4. Industrial Process Optimization
5. HVAC and Cooling Solutions

This report is intended for general and unrestricted use, but interested readers are encouraged to connect with the TAG research and advisory team for more information on the private [TAG Research as a Service \(RaaS\)](#) community that covers, discusses, and shares information on these topics in more depth and includes a wider range of startups, vendors, and companies.

TAG Climate Taxonomy

Our advisory work at TAG is guided by our TAG Climate Taxonomy which includes twenty different market categories, with one hundred associated subcategories – all developed consistent with our research into emerging and existing commercial offerings. Subscribers to

TAG Research as a Service (RaaS) have access to the more detailed specifics of the taxonomy and the full set of companies working in each area.

The taxonomy is intended to be interpreted as a market guide for commercial (and in some cases, open source) platform, tools, products, and services. The day-to-day tasks of any practitioners focused on sustainability will include many considerations such as dealing with regulators, addressing compliance issues, and keeping up with legislation that will not typically be represented in our taxonomy. We focus here on products and services.

TAG Climate Taxonomy V2.0 – 1Q2024

1 Renewable Energy 1.1 Solar and Wind Power Generation 1.2 Fission and Fusion 1.3 Hydropower Innovations 1.4 Geothermal Energy Technologies 1.5 Bioenergy and Biomass Systems	6 Water Management 6.1 Water Purification and Filtration 6.2 Smart Irrigation and Agriculture 6.3 Industrial Water Recycling 6.4 Stormwater Management 6.4 Desalination Technologies	11 Climate Data Analytics 11.1 Climate Modeling and Prediction 11.2 Weather Forecasting Technologies 11.3 Environmental Monitoring Services 11.4 Climate Risk Assessment Service 11.5 Carbon Footprint Assessment Tools	16 Eco-Friendly Consumer Products 16.1 Sustainable Fashion and Textiles 16.2 Eco-Friendly Personal Care Products 16.3 Biodegradable Packaging 16.4 Energy-Efficient Appliances 16.5 Sustainable Electronics
2 Energy Efficiency 2.1 Building Energy Management 2.2 Smart Grid and Energy Storage 2.3 LED Lights/Energy-Efficient Appliances 2.4 Industrial Process Optimization 2.5 HVAC and Cooling Solutions	7 Sustainable Agriculture 7.1 Precision Farming Technology 7.2 Organic Farming Solutions 7.3 Soil Health and Nutrient Management 7.4 Vertical Farming and Aquaponics 7.5 Crop Monitoring and AgTech	12 Sustainable Food and Beverage 12.1 Plant-Based and Lab Grown Meat 12.2 Sustainable Seafood Production 12.3 Food Waste Reduction Technologies 12.4 Eco-Friendly Food Packaging 12.5 Sustainable Ingredients and Oils	17 Clean Air and Pollution Control 17.1 Air Quality Monitoring Services 17.2 Air Purification Technologies 17.3 Pollution Source Tracking 17.4 Emission Control Systems 17.5 Indoor Air Quality Solutions
3 Sustainable Transportation 3.1 EV Charging Infrastructure 3.2 Sustainable Urban Mobility Solutions 3.3 Fleet Electrification Services 3.4 Alternative Fuel Technologies 3.5 EV Battery Recycling and Repurposing	8 Circular Economy 8.1 Recycling and Waste Management 8.2 Product Lifecycle Assessment 8.3 Sustainable Packaging Solutions 8.4 Reusable and Repairable Products 8.5 Upcycling and Repurposing Services	13 Eco-Tourism and Recreation 13.1 Eco-Friendly Accommodations 13.2 Sustainable Travel Booking Platforms 13.3 Adventure Tourism/Conservation Focus 13.4 Wildlife Monitoring/Conservation Tours 13.5 Eco-Friendly Outdoor Gear	18 Climate Education and Services 18.1 Climate Change Education workshops 18.2 Sustainability Training 18.3 Climate Industry Advisory 18.4 Climate Intelligence Software 18.5 Climate Insurance
4 Carbon Capture and Utilization (CCU) 4.1 Direct Air Capture incl. Point Source 4.2 Carbon Removal and Sequestration 4.3 Carbon Mineralization 4.4 Enhanced Oil Recovery (EOR) 4.5 Soil-Based Sequestration	9 Carbon Market and Trading Platforms 9.1 Emission Reduction Verification Services 9.2 Carbon Offset Project Development 9.3 Carbon Credit Exchange Program 9.4 Blockchain-Based Carbon Trading 9.5 Carbon Taxation Solutions	14 Green Energy Storage 14.1 Advanced Battery Technologies 14.2 Advanced Fuel Cells 14.3 Energy Storage for Electric Vehicles 14.4 Grid-Scale Energy Storage Solutions 14.5 Hydrogen Energy Storage	19 Sustainable Supply Chain 19.1 Sustainable Sourcing/Procurement 19.2 Supply Chain Transparency 19.3 Ethical Labor Practices 19.4 Circular Supply Chain Solutions 19.5 Eco-Friendly Transport in Supply Chain
5 Green Building and Infrastructure 5.1 Sustainable Architecture and Design 5.2 Green Building Materials and Concrete 5.3 Zero-Emission Construction Equipment 5.4 Green Roofing and Insulation 5.5 Sustainable Urban Planning	10 Sustainable Finance and Investment 10.1 Green Bonds and Sustainable invest. 10.2 ESG Analysis 10.3 Impact Investment Platforms 10.4 Carbon Disclosure and Reporting Tools 10.5 Sustainable Investment Advisory	15 Biodiversity and Conservation 15.1 Wildlife Habitat Restoration 15.2 Conservation Tech for Monitoring 15.3 Anti-Poaching Solutions 15.4 Sustainable Forestry Practices 15.5 Marine Conservation Initiatives	20 Green Technology Integration 20.1 IoT for Sustainability 20.2 Autonomous Electric Vehicles 20.3 Blockchain/Transparent Supply Chain 20.4 3D Printing for Sustainable Manufact. 20.5 Space Tech for Climate Monitoring

Figure 1. TAG Climate Taxonomy

Overview of Energy Efficiency Solutions

The following emerging global commercial opportunities for energy efficient solutions are covered in this report, including the listing of several viable commercial entities providing solutions on the market today:

- Building Energy Management Systems (BEMS) utilize sensors and controls to monitor and regulate a building's energy consumption. BEMS optimize heating, ventilation, and air conditioning (HVAC) systems, lighting, and other electrical devices.
- Smart grids employ advanced communication and control technologies to enhance the distribution and management of electricity. Energy storage solutions, such as lithium-ion batteries, store excess energy during periods of low demand and release it during peaks.

- Light Emitting Diode (LED) lighting technology consumes significantly less energy compared to traditional incandescent bulbs. Energy-efficient appliances, compliant with strict energy efficiency standards, reduce electricity consumption.
- Industrial processes consume substantial energy, and optimization is crucial. Advanced control systems and automation streamline manufacturing, reducing energy-intensive activities and minimizing downtime.
- Efficient HVAC and cooling solutions use variable speed drives, intelligent temperature control, and predictive maintenance to optimize energy consumption. High-efficiency chillers, heat pumps, and heat exchangers reduce energy usage and maintain comfort.

Focus Area: Building Energy Management

Building Energy Management (BEM) is a crucial component of zero-carbon initiatives and represents robust business prospects due to its technical capabilities and cost-saving potential. BEM systems are designed to monitor, control, and optimize the energy consumption of commercial and residential buildings. Here's a technical overview of how BEM contributes to zero-carbon initiatives while being a sound business investment:

1. **Energy Efficiency Optimization:** BEM systems utilize sensors and advanced algorithms to continuously monitor various building parameters, including temperature, humidity, occupancy, and lighting. This data is processed in real-time to make informed decisions about heating, cooling, and lighting.
2. **Load Management:** BEM systems enable load shedding during peak demand periods by shedding non-essential loads or using energy storage solutions. This reduces the strain on the grid and lowers the need for fossil fuel-based peaker plants, aligning with zero-carbon goals. Load management also results in significant cost savings for building owners through demand charge reduction.
3. **Renewable Energy Integration:** BEM systems can integrate seamlessly with on-site renewable energy sources, such as solar panels and wind turbines. These systems use real-time data to prioritize the use of renewable energy when available, minimizing reliance on grid power and further reducing carbon footprint.
4. **Predictive Maintenance:** Predictive maintenance is a key feature of BEM systems. By continuously monitoring equipment performance and identifying anomalies, BEM can schedule maintenance before critical failures occur. This not only improves equipment reliability but also reduces energy waste associated with poorly functioning HVAC systems or other energy-intensive equipment.
5. **Data Analytics and Reporting:** BEM platforms generate detailed reports and analytics, offering building owners and operators insights into their energy consumption patterns. This data-driven approach helps identify areas for improvement and quantifies energy and cost savings, which can be essential in demonstrating the value of BEM investments to potential clients.
6. **Return on Investment (ROI):** From a business perspective, BEM systems offer attractive ROI. The energy savings realized through improved efficiency typically offset the initial investment relatively quickly.

Building Energy Management contributes significantly to zero-carbon initiatives by optimizing energy use in buildings. Its ability to enhance energy efficiency, integrate renewable sources, and provide data-driven insights make it a compelling option for businesses seeking to reduce their carbon footprint while improving their bottom line.

Focus Area: Smart Grid and Energy Storage

Smart Grid and Energy Storage systems play a pivotal role in advancing zero-carbon initiatives while presenting lucrative business prospects. These technologies enable more efficient energy distribution, grid stability, and the integration of renewable energy sources. Here is a technical overview of how Smart Grid and Energy Storage contribute to zero-carbon goals and offer sound business opportunities:

1. **Grid Efficiency and Demand Response:** Smart Grids incorporate advanced sensors, communication networks, and control systems to optimize the flow of electricity. These systems actively monitor energy consumption and adjust supply to meet demand in real-time. Through demand response programs, Smart Grids can reduce peak demand and balance grid loads, thereby minimizing the need for fossil fuel-based peaker plants and lowering carbon emissions.
2. **Renewable Energy Integration:** One of the key technical aspects of Smart Grids is their ability to seamlessly integrate renewable energy sources, such as solar and wind power, into the grid. These intermittent sources require sophisticated grid management to ensure smooth and reliable operation. Smart Grid technologies facilitate the efficient use of renewable energy when available, contributing to carbon reduction objectives.
3. **Energy Storage Solutions:** Energy storage technologies, such as lithium-ion batteries and pumped hydro storage, are essential components of Smart Grids. These systems store excess electricity during periods of low demand and release it during peak hours or when renewable energy generation is intermittent. Energy storage enhances grid stability, reduces transmission losses, and ensures a constant supply of electricity, supporting zero-carbon initiatives.
4. **Grid Resilience and Reliability:** Smart Grids incorporate advanced analytics and predictive maintenance capabilities. This enables utilities to identify and address potential issues before they cause power outages. Grid resilience is essential for maintaining a stable power supply and reducing carbon emissions associated with emergency backup power sources.
5. **Electrification of Transportation:** Smart Grids are crucial for the electrification of transportation, particularly electric vehicles (EVs). Charging infrastructure integrated into the grid can optimize EV charging times, reducing stress on the grid during peak hours and encouraging cleaner transportation alternatives.
6. **Business Opportunities:** From a business perspective, Smart Grid and Energy Storage technologies offer significant prospects. Companies can develop and supply grid management software, advanced sensors, energy storage solutions, and grid

infrastructure components. As the transition to renewable energy and zero-carbon grids accelerates, the demand for these technologies is expected to grow substantially.

Smart Grid and Energy Storage systems contribute to zero-carbon initiatives by improving grid efficiency, integrating renewable energy sources, and supporting the electrification of transportation. Their technical capabilities align with sustainability goals, while their growing adoption creates promising business opportunities for companies involved in their development and deployment.

Focus Area: LED Lights and Energy Efficient Appliances

LED lights and energy-efficient appliances are instrumental in advancing zero carbon initiatives while offering attractive business prospects. These technologies significantly reduce energy consumption and carbon emissions in the lighting and appliance sectors. Here is a technical overview of how LED lights and energy-efficient appliances contribute to zero-carbon goals and present favorable business opportunities:

1. **LED Lighting Technology:** Light Emitting Diode (LED) lighting technology is highly energy-efficient compared to traditional incandescent and fluorescent lighting. LEDs produce light by passing an electric current through a semiconductor, emitting minimal heat, which results in energy savings. LED lights are more efficient in converting electrical energy into visible light, reducing energy consumption by up to 80% compared to incandescent bulbs.
2. **Energy-Efficient Appliances:** Energy-efficient appliances are designed to consume less electricity while providing the same or improved functionality compared to standard models. These appliances incorporate advanced technologies such as variable-speed motors, improved insulation, and precise temperature control. For instance, high-efficiency refrigerators and air conditioners use less energy to maintain desired temperature levels.
3. **Carbon Emissions Reduction:** The adoption of LED lighting and energy-efficient appliances leads to a significant reduction in carbon emissions. These technologies reduce the demand for electricity, resulting in lower emissions from power plants, especially those relying on fossil fuels. As a result, businesses and households can play a crucial role in achieving zero-carbon initiatives by simply upgrading their lighting and appliances.
4. **Improved Lifespan:** LED lights and energy-efficient appliances have longer lifespans compared to their traditional counterparts. This reduces the frequency of replacements and waste, contributing to sustainability goals by reducing the environmental impact associated with manufacturing and disposal.
5. **Return on Investment (ROI):** From a business perspective, the return on investment for LED lights and energy-efficient appliances is favorable. Although the initial upfront cost may be higher than standard alternatives, the long-term energy savings and reduced maintenance costs outweigh the initial investment. Businesses can market their

commitment to sustainability, attracting environmentally conscious consumers and enhancing their brand reputation.

6. **Government Incentives:** Many governments and regulatory bodies offer incentives and rebates to promote the adoption of energy-efficient lighting and appliances. These incentives can offset the initial cost, making the transition to energy-efficient technologies even more appealing for both businesses and consumers.

LED lights and energy-efficient appliances play a crucial role in zero-carbon initiatives. Their ability to significantly reduce energy consumption, lower carbon emissions, and offer long-term cost savings makes them an attractive choice for businesses and consumers alike. Additionally, the market for energy-efficient products continues to grow, creating promising business opportunities for manufacturers and retailers.

Focus Area: Industrial Process Optimization

Industrial Process Optimization is a technically advanced approach that not only contributes significantly to zero carbon initiatives but also offers strong business prospects. It focuses on enhancing the efficiency of industrial operations, reducing energy consumption, and minimizing carbon emissions. Here is a technical overview of how Industrial Process Optimization supports zero carbon goals and presents lucrative business opportunities:

1. **Energy Efficiency Improvements:** Industrial processes often involve energy-intensive activities, such as heating, cooling, and manufacturing. Process optimization employs advanced control systems, sensors, and data analytics to identify inefficiencies and improve energy utilization. By reducing energy waste, businesses can lower their carbon footprint while simultaneously cutting operational costs.
2. **Heat Recovery Systems:** One key technical aspect of Industrial Process Optimization is the integration of heat recovery systems. These systems capture and reuse waste heat generated during industrial processes, such as combustion or manufacturing. By recovering and repurposing this heat, businesses can reduce the need for additional energy inputs, contributing to carbon reduction efforts.
3. **Efficient Motors and Drives:** Advanced industrial motors and variable frequency drives (VFDs) play a crucial role in optimizing processes. VFDs adjust motor speed to match the required load, resulting in energy savings. High-efficiency motors and drives minimize energy losses and improve overall system efficiency.
4. **Improved Insulation and Heat Management:** Optimizing industrial processes often involves enhancing insulation materials and implementing efficient heat management techniques. Better insulation reduces heat losses, while precise heat management ensures that processes operate within the desired temperature ranges, further reducing energy consumption and carbon emissions.
5. **Predictive Maintenance:** Predictive maintenance is a technical feature of Industrial Process Optimization. It utilizes sensors and data analytics to monitor equipment performance continuously. By identifying potential equipment failures before they

occur, businesses can schedule maintenance activities, reduce downtime, and avoid energy waste associated with equipment malfunctions.

6. **Business Opportunities:** From a business perspective, Industrial Process Optimization offers substantial prospects. Companies specializing in process optimization consulting, software development, or the manufacture of energy-efficient equipment can tap into this growing market. As industries increasingly prioritize sustainability and carbon reduction, the demand for process optimization services and solutions continues to expand.
7. **Regulatory Compliance:** Many regions impose strict environmental regulations and emissions standards. Industrial Process Optimization helps businesses comply with these regulations by reducing emissions and minimizing environmental impact. Compliance with such standards is not only a legal requirement but also a factor that enhances a company's reputation and market competitiveness.

Industrial Process Optimization aligns with zero carbon initiatives by enhancing energy efficiency, reducing waste, and minimizing carbon emissions in industrial operations. Its technical capabilities offer substantial business opportunities, as industries seek to improve sustainability, reduce operational costs, and comply with environmental regulations.

Focus Area: HVAC and Cooling Solutions

HVAC (Heating, Ventilation, and Air Conditioning) and cooling systems are vital in both residential and commercial settings, offering substantial contributions to zero-carbon initiatives while also presenting strong business prospects. These systems play a pivotal role in energy efficiency, environmental sustainability, and cost savings. Here's a technical overview of how HVAC and cooling systems support zero-carbon goals and provide lucrative business opportunities:

1. **Energy Efficiency Technologies:** HVAC systems employ various energy-efficient technologies, such as variable speed drives (VSDs), high-efficiency heat exchangers, and advanced control algorithms. VSDs adjust the speed of motors to match the required load, resulting in significant energy savings. High-efficiency heat exchangers enhance heat transfer while minimizing energy consumption. Advanced control systems optimize HVAC operations, reducing energy waste.
2. **Integration with Building Automation:** HVAC systems can integrate seamlessly with building automation systems. These systems use sensors and data analytics to monitor temperature, humidity, occupancy, and outdoor conditions in real-time. By continuously adjusting HVAC settings based on this data, buildings can maintain comfort levels while minimizing energy usage, aligning with zero-carbon initiatives.
3. **Renewable Energy Integration:** The integration of renewable energy sources, such as solar and geothermal systems, into HVAC systems reduces their carbon footprint. Solar thermal systems can provide hot water and space heating, while geothermal heat pumps utilize the stable temperature of the Earth to improve heating and cooling efficiency.

4. **Predictive Maintenance:** HVAC systems can employ predictive maintenance techniques. Sensors and analytics monitor equipment performance, identifying potential issues before they lead to failures. Predictive maintenance minimizes downtime, reduces energy waste due to inefficient equipment, and extends the lifespan of HVAC systems.
5. **Efficient Refrigerants:** The choice of refrigerants in cooling systems is critical. Modern HVAC systems use environmentally friendly refrigerants with lower global warming potential (GWP). This reduces the carbon footprint of cooling systems and aligns with sustainability goals.
6. **Business Opportunities:** From a business perspective, HVAC and cooling systems offer significant prospects. Companies involved in the design, manufacturing, installation, and maintenance of energy-efficient HVAC systems can capitalize on the growing demand for sustainable solutions. As regulations and consumer preferences increasingly favor energy-efficient and eco-friendly HVAC technologies, the market for these products and services is expanding.
7. **Cost Savings and Productivity:** Energy-efficient HVAC systems not only reduce carbon emissions but also lower energy costs for building owners. Improved indoor air quality and thermal comfort enhance occupant productivity and well-being, further increasing the appeal of energy-efficient HVAC systems.

HVAC and cooling systems contribute to zero-carbon initiatives by improving energy efficiency, integrating renewable energy, and reducing carbon emissions in residential and commercial buildings. Their technical capabilities align with sustainability goals and offer substantial business opportunities for companies involved in their development, installation, and maintenance.

Companies and Contributions

The companies listed below emerged as part of our research at TAG Climate. Our goal in listing these fine firms is to provide a starting point for buyers, advocates, stakeholders, and researchers trying to make sense of the commercial landscape for energy efficiency as a means for driving toward a more sustainable energy future.

Building Energy Management Vendors

1. [ABB](#): ABB offers intelligent building automation and energy management systems.
2. [EcoEnergy Insights](#): EcoEnergy Insights is a part of Carrier Global Corporation, which focuses on IoT-based energy management and predictive maintenance solutions for commercial buildings.
3. [Honeywell Building Technologies](#): Honeywell provides advanced building management systems and automation solutions to improve energy efficiency in buildings.
4. [Johnson Controls](#): Johnson Controls specializes in building controls, HVAC systems, and building management technologies to maximize energy efficiency.
5. [Clockworks Analytics](#) : Clockworks Analytics (formerly KGS Buildings) provides building analytics and optimization solutions to improve energy performance and reduce carbon emissions.

6. [Prescriptive Data](#): Prescriptive Data offers building management and optimization software, including HVAC control and energy analytics.
7. [Schneider Electric](#): Schneider Electric offers integrated building energy management solutions that optimize energy efficiency for commercial and industrial buildings.
8. [Siemens](#): Siemens Smart Infrastructure offers Building Energy Management solutions that focus on efficient building operation, energy savings, and sustainability.
9. [Verdantix](#): Verdantix offers research and advisory services related to energy management technologies and strategies.

Focus Area: Smart Grid and Energy Storage

1. [Amber Kinetics](#): Amber Kinetics specializes in flywheel energy storage systems for grid stabilization and renewable energy integration.
2. [Enphase Energy](#): Enphase Energy offers advanced energy storage systems and microinverters for solar energy integration.
3. [Eos](#): Eos Energy Storage develops zinc-based energy storage solutions for utility-scale applications.
4. [Fluence](#): Fluence delivers energy storage solutions and grid management software to optimize the use of renewable energy and improve grid reliability.
5. [Sonnen](#): Sonnen specializes in residential and commercial energy storage solutions to enable clean energy management.
6. [Stem](#): Stem focuses on energy storage and advanced AI-based energy optimization for commercial and industrial customers.
7. [Tesla](#): Tesla Energy develops and manufactures energy storage solutions, including Powerwall and Megapack, to support smart grid integration and renewable energy use.

Focus Area: LED Lights and Energy Efficient Appliances

1. [Bosch](#): Bosch Thermotechnology manufactures energy-efficient heating and cooling solutions.
2. [Cree Lighting](#): Cree Lighting manufactures energy-efficient LED lighting solutions for commercial and residential applications.
3. [Daikin Industries](#): Daikin offers energy-efficient HVAC systems and heat pumps for residential and commercial use.
4. [EcoSmart](#): EcoSmart specializes in advanced energy-efficient tankless electric water heaters.
5. [GE Appliances](#): GE Appliances produces energy-efficient appliances such as refrigerators, dishwashers, and HVAC systems.
6. [LG Electronics](#): LG Electronics provides energy-efficient appliances and electronics, including air conditioners and refrigerators.
7. [Mitsubishi Electric](#): Mitsubishi Electric produces energy-efficient HVAC systems and home appliances.
8. [Samsung Electronics](#): Samsung offers a range of energy-efficient home appliances and consumer electronics.

9. [Signify](#): Signify (FKA Philips Lighting) offers a wide range of energy-efficient LED lighting products for various industries.
10. [Whirlpool Corporation](#): Whirlpool Corporation manufactures energy-efficient home appliances, including refrigerators and washing machines.

Focus Area: Industrial Process Optimization

1. [ABB](#): ABB specializes in industrial automation and control systems that optimize processes, improve energy efficiency, and reduce carbon emissions.
2. [AspenTech](#): AspenTech specializes in process optimization software and digital twin technology to improve energy efficiency and reduce emissions in industrial processes.
3. [AVEVA](#): AVEVA offers industrial software solutions for process optimization and sustainability, including energy management and emissions reduction.
4. [Emerson](#): Emerson offers industrial automation technologies, including process optimization and energy management for manufacturing and process industries.
5. [Honeywell Process Solutions](#): Honeywell Process Solutions provides process optimization software and automation solutions for improved energy efficiency.
6. [Rockwell Automation](#): Rockwell Automation provides industrial process control and automation solutions, including predictive maintenance and energy management.
7. [SAP Digital Business Services](#): SAP provides software and services to help industries optimize processes, reduce energy consumption, and achieve sustainability goals.
8. [Yokogawa Electric Corporation](#): Yokogawa offers advanced control and instrumentation solutions for process industries, focusing on energy efficiency.

Focus Area: HVAC and Cooling Solutions

1. [Carrier](#): Carrier offers a wide range of energy-efficient heating, ventilation, and air conditioning (HVAC) solutions for buildings and industrial facilities.
2. [Mitsubishi Electric](#): Mitsubishi Electric manufactures energy-efficient HVAC systems for commercial and industrial buildings.
3. [Daikin Applied](#): Daikin Applied provides energy-efficient HVAC systems, including air handlers and chillers, for commercial and industrial use.
4. [Danfoss](#): Danfoss specializes in energy-efficient HVAC and refrigeration controls and solutions.
5. [Ingersoll Rand](#): Ingersoll Rand offers energy-efficient HVAC and industrial solutions, including compressors and air conditioning systems.
6. [Johnson Controls](#): Johnson Controls provides HVAC and building management systems that focus on energy efficiency and sustainability.
7. [Lennox International](#): Lennox International manufactures energy-efficient HVAC and refrigeration systems for residential and commercial markets.
8. [LG HVAC](#): LG HVAC provides energy-efficient heating, cooling, and ventilation solutions for residential and commercial spaces.
9. [Trane Technologies](#): Trane Technologies manufactures energy-efficient HVAC systems and services for residential, commercial, and industrial applications.

About TAG

TAG is a trusted next generation research and advisory company that utilizes an AI-powered SaaS platform to deliver on-demand insights, guidance, and recommendations in cybersecurity, artificial intelligence, and sustainability to enterprise teams, government agencies, and commercial vendors.

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