



SUSTAINABILITY BEST PRACTICES

for **Audiovisual
Consultants**

Building a Sustainable Future Through Innovation



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Building a Greener AV Industry

The AVIXA Sustainability Advisory Group seeks to gather manufacturers, consultants and integrators to develop and promote a unified framework for reducing the environmental impact of the AV industry. By addressing the following goals, AVIXA can lead the way in creating a greener, more sustainable AV industry while fostering collaboration and innovation among stakeholders.



Goals for the AV Industry

In order to create a more sustainable and environmentally responsible AV industry, the AVIXA Sustainability Advisory Group has outlined a set of key goals. These objectives will guide our efforts to reduce environmental impact, foster collaboration, and drive innovation in sustainability. Here are the core goals that will help shape a greener future for the AV sector:

- 1 Develop and standardize industry best practices
- 2 Promote collaboration across the industry
- 3 Advance sustainable product design
- 4 Minimize carbon emissions
- 5 Establish lifecycle management best practices
- 6 Increase energy efficiency
- 7 Reduce electronic waste (e-waste)
- 8 Educate and train industry professionals
- 9 Encourage circular economy practices
- 10 Align global sustainable goals and frameworks (e.g., UN SDGs, GRI)
- 11 Measure and track sustainable performance
- 12 Empower end users with sustainable choices
- 13 Drive innovation in green technology
- 14 Advocate for industry accountability
- 15 Build a sustainable AV future



Programming / Schematic Design:

Recommendation:



Initiate conversation
with client and end user
early on in project



Benchmarking –
Benefits / ROI



Provide real world
examples and
implement these into
future projects

Best Practice:



Establish/Verify a Sustainability Plan

Coordinate with key project stakeholders and technology partners to align project's sustainability goals for the technology systems with the overall project sustainability goals.



Establish a paperless project delivery process

Align with or establish an electronic documentation portal or other paperless delivery means for all project deliverables to be transmitted electronically with all key stakeholders.



Identify applicable sustainability requirements, programs and products for the project.

Establish and present all details of applicable federal/state/local government sustainability laws, regulations, and directives and identify all government/industry incentives to the Owner. Include a summary of relevant sustainability programs and sustainability-friendly products by manufacturers. Include projected equipment, lifecycles and durability statistics, where applicable



Provide five-year energy use/cost projections with program report and identify strategies to minimize ongoing energy consumption

Get estimated hours of use for each space or system type from the Owner (if applicable) or provide Owner with industry averages per room type. Determine which equipment can be disconnected from main power and which equipment should be in standby mode when the system is off. Identify strategies including system timers, occupancy sensors, video signal sensors, tie-ins to scheduling software, etc. to be explored for this project and potential energy savings of these strategies. For retrofit projects, specify energy use meters in existing facilities prior to start of renovation while systems are still in operating mode to create a baseline for energy savings. Refer to AVIXA Energy Management Standard for specifics on how to measure current energy usage.



Undertake a needs assessment process and publish a program report.

Create a comprehensive program statement tailored to the owner's specific needs that can reduce waste from system overdesign and enhance the deployment of appropriate technology with planned upgrade paths. Review and obtain approval by the Owner.



Identify opportunities for reclaimed equipment in the system design.

Identify reclaimed equipment to reduce use of virgin materials for this project and associated shipping costs/materials/emissions. Reclaimed equipment may be specified for reuse in other facilities if suitable reuse options are identified. Equipment reclaimed from other projects may be specified for use. Identify third party organizations that will take and reuse/redistribute usable equipment.



Identify End-of-Life options/programs for all equipment

Define recycling centers, manufacturers who reuse/recycle products, donation opportunities, etc. for owner to consider. If installer/contractor is known, include potential recycling programs in the report. Identify equipment donation opportunities and e-waste centers for proper disposal of non-reusable components.



Identify opportunities for Integrated Building Technology and Energy Management.

Coordinate with the design team to have as many building systems as practical work together to lower energy needs as well as reduce infrastructure and construction costs. Identify opportunities for the smart building systems to share sensor information, user interfaces, and network resources to lower installation costs through an integrated systems design. Identify and document control systems software capable of integrating, managing, monitoring, automating, reporting, and providing a building dashboard. Integration may include mechanical, BMS, lighting, shading, security, sensors, Audiovisual, and energy monitoring and management systems.

Design / Bid Documents:

Best Practice:



Specify remote management software that can provide data on power consumption and other sustainability metrics



Specify products that align with clients sustainability goals. Review the following:



Power consumption



Materials used in manufacturing, shipping, and installing of product

- Recyclability
- Locally sourced



Provide a sustainability report / output of design with bid documents



Specify sustainability requirements for bidders



Update templates to reflect sustainability options vs. legacy (Screens, furn, racks, etc.)



Design for deconstruction & reuse





Employ design strategies to optimize infrastructure for sustainability.



Structured Cabling



Signal Distribution over UTP/Fiber Cabling



Signal Distribution over Wireless



Signal Distribution via Internet Protocol (IP)



Device Control over IP



Coordinate mechanical HVAC/AirCon requirements

Calculate accurate equipment heat load data, power draw, realistic duty cycles, and hours of operation. Coordinate resulting mechanical requirements to Owner and design team partners. Coordinate millwork/furniture heat dissipation issues where applicable.



Coordinate electrical requirements for energy use reduction

Coordinate energy reduction methodologies with the design team/ Electrical Engineer. Assist in achieving a lower process energy load (plug load) through automated and integrated controls systems.





**List existing/
reclaimed
infrastructure items
being employed in
the base building
design.**

Itemize technology infrastructure products for reuse such as equipment racks, mounts, wall boxes, floor boxes, conduits, cable trays, cabling, power outlets/power management systems, etc.



**Coordinate
InfoComm/AVIXA
ANSI standards
for lighting of
audiovisual and
videoconferencing
spaces.**

Communicate InfoComm/AVIXA ANSI standards for contrast ratio of projected images and proper lighting for video capture/video conferencing to the lighting/electrical consultant to provide proper light levels and control.



**Coordinate
Audiovisual System
Design with the
room acoustics, and
where applicable,
coordinate the
specification of
green acoustic
products.**

Coordinate green acoustic products that are not in conflict with the room requirements and audiovisual system performance.





Specify product packaging made from at least 70% recycled materials.



Eliminate consumable batteries from audiovisual components.



Design Systems for IP based remote management.



Provide a sustainability report / output of design with bid documents



**Specify sustainability requirements for bidders
Update templates to reflect sustainability options vs. legacy (Screens, furniture, racks, etc.)**



Design for deconstruction & reuse



Why push sustainability in AV as a consultant?



It's the right thing to do



Add value for end users, clients, and the planet.



Help the AEC industry reduce carbon footprint

- Sustainable initiatives can lead to greater ROI



You can make a difference



Making a difference at the local level can lead to global impact



Continuing Education:

- Continuous learning about sustainable benchmarks
- Active recertification i.e., CTS, CTS-D, or RCDD
- Attend sustainability dedicated trade shows and sustainability panels at trade shows
- Join sustainability committees
- Webinars and podcasts
- Online and in-person certifications at universities

Glossary

AV (Audiovisual): Technology that combines sound and visual components, such as projectors, displays, speakers, microphones, and control systems, for communication, presentation, or entertainment purposes.

Circular Economy: An economic model aimed at eliminating waste and keeping products, components, and materials in use for as long as possible through reuse, repair, refurbishment, and recycling.

DaaS (Device as a Service): A service model in which hardware, software, and support are provided to clients on a subscription basis, enabling upgrades and reducing waste through refurbishment and reuse.

Ecodesign: A design approach that considers environmental impacts throughout a product's life cycle, aiming for energy efficiency, modularity, durability, and minimal use of hazardous materials.

EPEAT (Electronic Product Environmental Assessment Tool): A global rating system for greener electronics, evaluating products based on environmental criteria such as energy use, recyclability, and chemical content.

ESG (Environmental, Social, and Governance): A set of criteria used to evaluate a company's environmental responsibility, social impact, and governance practices.

GRI (Global Reporting Initiative): An international standard for sustainability reporting, providing frameworks and metrics for organizations to disclose their environmental, social, and governance performance.

IFRS S2: A sustainability disclosure standard issued by the International Financial Reporting Standards Foundation, focusing on climate-related risks and opportunities.

KPI (Key Performance Indicator): A measurable value that indicates progress toward specific objectives, such as energy savings, waste reduction, or increased use of refurbished equipment.

LCA (Life Cycle Assessment): A systematic method for evaluating the environmental impact of a product across all stages of its life, from raw material extraction to disposal.

Modular Design: A product design approach that uses interchangeable and upgradeable components, allowing for easier repairs, upgrades, and waste reduction.

PCF (Product Carbon Footprint): The total greenhouse gas emissions associated with a product's life cycle, measured in carbon dioxide equivalent (CO₂e).

REACH (Registration, Evaluation, Authorization and Restriction of Chemicals): An EU regulation aimed at protecting human health and the environment from risks posed by chemicals.

Remote Management: The ability to monitor, configure, and troubleshoot systems without traveling to the site, reducing emissions and improving efficiency.

RoHS (Restriction of Hazardous Substances): An EU directive that limits the use of specific hazardous materials in electrical and electronic equipment.

R2v3: The latest version of the Responsible Recycling standard for electronics recyclers, ensuring environmentally sound and safe management of electronic waste.

SLA (Service Level Agreement): A contractual commitment between a service provider and a client defining the quality, availability, and responsibilities for provided services.

Sustainable Packaging: Packaging designed to minimize environmental impact, typically recyclable, compostable, reusable, and compliant with regulations such as the EU Packaging and Packaging Waste Directive.

SDGs (Sustainable Development Goals): A set of 17 global goals established by the United Nations to address issues such as poverty, inequality, climate change, and environmental degradation by 2030.

WEEE (Waste Electrical and Electronic Equipment): An EU directive that sets requirements for the collection, recycling, and recovery of electronic waste to reduce environmental impact.

