



### **OPPORTUNITY**

The Metropolitan Electricity Authority is a Thai electricity and power provider that required networked AV and lighting solutions for its auditorium, meeting spaces and seminar rooms.



# **SOLUTION**

Mahajak installed state-of-the-art HARMAN Professional Solutions networked AV and lighting systems throughout the facilities, including solutions from JBL, Soundcraft, AMX and Martin.



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Established in 1958, the Metropolitan Electricity Authority is a state-run electricity and power provider that services Bangkok, Nonthaburi and Samut Prakan. The facilities span across three towers and include a convention center, an auditorium, a food center, a nursing home, an exhibition hall and multiple office spaces. To commemorate the enterprise's 61st anniversary, Metropolitan Electricity Authority hired Mahajak to install state-of-the-art HARMAN Professional Solutions networked AV and lighting systems throughout the facilities.

"The client wanted sophisticated AV and lighting solutions to support their meeting rooms, offices and convention centers," said Pongsakorn Kanchanachayphoom, Director of Project, Mahajak Development Co. Ltd. "We selected end-to-end AMX systems, as they support a wide range of distribution formats and applications, regardless of the distance between source and destination. We chose Martin lighting fixtures for their ability to create stunning visual displays without causing glare."

To enable digital voting during meetings, Mahajak equipped the MOC meeting room with an AMX networked AV system, which can be controlled using AMX NX series and MKP series control panels or an AMX TPC-iPad wireless control system. Sound is routed through a Soundcraft Signature Series mixing console and distributed to JBL Control series ceiling loudspeakers via BSS BLU series processors. For the visual system, an AMX Enova DGX800-ENC digital media switcher is used to manage video feeds.

The committee room with 50 seats has an audio system similar to the MOC Room. This room is for executive meetings and enabled with easy to use arrangements facilitated by 24" embed monitors installed with monitor lifts. There is a continuous screen helping the audiences to see the presentation at eye level. The 164" motorized screen and 5,000 ANSI lumens projector are provided with Digital Matrix 8 \* 8 AMX DGX800-ENC with video card.





















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The control system used AMX NX Series together with AMX/TPC-iPad wireless control system for convenience to control all equipments, on and off functions, and the system can be connected to the central control. The system can be monitored to check their functions independently.

Mahajak installed a similar audio system in the Governor meeting room, along with an impressive video system featuring multiple embedded 24-inch video monitors, a 164-inch motorized screen and a powerful 5,000 ANSI lumens projector. The system is controlled using the AMX Enova DGX800-ENC; along with AMX NX series integrated controllers and AMX TPC-iPad software. Mahajak also equipped three additional meeting rooms with similar systems.

To enable staff to monitor AV systems throughout the facilities, Mahajak leveraged AMX Resource Management Suite (RMS) Enterprise software, increasing management efficiency. For seamless streaming between devices, Mahajak installed AMX SVSI N2000 series encoders and decoders. This future-proof system comprised of the latest HARMAN products makes it easy to integrate additional products or upgrade in the future.

For added convenience, Mahajak deployed seven-inch touch screens in every meeting room to display the room's status, such as green for "Available", yellow for "Already Booked" and red for "In Use". On the exterior of the building, outdoor LED screens and control equipment were installed to display animations, slide shows, videos, and graphics in full color up to 30 meters away from the installation point.

The auditorium, being the heart of meeting rooms, is designed like a cinema theater. Class-leading JBL Line Array loudspeakers were installed to provide clear, detailed sound throughout the venue while supporting multi-functional operation. JBL VerTec series loudspeakers and subwoofers are mounted together with JBL AC series and JBL ASB series loudspeakers to provide powerful sound. Mahajak selected JBL PRX series loudspeakers as floor monitors, enabling performers to hear themselves on stage.

For visual media in the auditorium, Mahajak installed an AMX HDBaseT system along with an AMX DGX800-ENC digital media switcher. Three powerful projectors installed at the back of the room provide crisp, clear visuals. The system is controlled via iPad using the AMX TPC-iPad software.

In the Seminar rooms, a Soundcraft Si Performer series mixing console enables the space to be used as a multipurpose venue. JBL CBT series column loudspeakers deliver even, balanced coverage in the Split room, while JBL VRX series line array loudspeakers and STX series subwoofers deliver class-leading sound quality in the Merged room.







We chose Martin lighting fixtures for their ability to create stunning visual displays without causing glare."

For visuals, Mahajak equipped the space with an AMX HDBaseT system and AMX Enova DGX800-ENC digital media switcher. Two high-powered projectors deliver video signals to three motorized screens and four portable LED TVs. To create immersive lighting shows in the auditorium, Mahajak installed a wide range of Martin moving head fixtures, including the MAC Quantum Profile.

"We required an AV and lighting system that would facilitate seamless communication while adding a sophisticated look and feel to our venues," said a spokesperson at Metropolitan Electricity Authority. "The AMX networked AV system provided by Mahajak satisfied all of our requirements, and its centralized platform made it very easy for us to access, maintain and upgrade the system from anywhere in the buildings."

### **PRODUCTS USED**

**AMX ENOVA DGX800-ENC DIGITAL MEDIA SWITCHERS** 

**AMX HDBASET SYSTEMS** 

**AMX NX SERIES INTEGRATED CONTROLLERS** 

AMX RESOURCE MANAGEMENT SUITE (RMS) ENTERPRISE SOFTWARE

**AMX SVSI N2000 SERIES ENCODERS AND DECODERS** 

AMX TPC-IPAD SOFTWARE

**BSS BLU SERIES PROCESSORS** 

**JBL AC SERIES LOUDSPEAKERS** 

**JBL ASB SERIES LOUDSPEAKERS** 

**JBL CBT SERIES COLUMN LOUDSPEAKERS** 

**JBL CONTROL SERIES CEILING LOUDSPEAKERS** 

**JBL PRX SERIES LOUDSPEAKERS** 

**JBL STX SERIES SUBWOOFERS** 

JBL VERTEC SERIES LINE ARRAY LOUDSPEAKERS

**JBL VRX SERIES LINE ARRAY LOUDSPEAKERS** 

MARTIN MAC QUANTUM PROFILE FIXTURES

**SOUNDCRAFT SIGNATURE SERIES MIXING CONSOLES** 

SOUNDCRAFT SI PERFORMER SERIES MIXING CONSOLES







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