



Astana Energy Hall

Astana, Kazakhstan

ADRIAN SMITH + GORDON GILL
ARCHITECTURE

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Astana, Kazakhstan

Astana Energy Hall, now under construction, will be a 6,500 sm, 1,000 seat multi-functional Proscenium Theater. It has been designed as the main performance space for Astana Expo City 2017, the site of the next International Exposition in Astana, Kazakhstan.

SERVICES

Architecture
Master Planning
Urban Design

CLIENT

IT Engineering

FUNCTION

Cultural

Energy Hall will significantly contribute to the cultural experience of Astana, both during the expo, from June-September 2017 and after, when the site will become a legacy for the city. Positioned adjacent to the Kazakhstan Pavilion – the centrally located sphere structure that will act as the focal point of the exposition – Energy Hall is located in a retail district of the exposition.

The main challenge that the design team faced was how to integrate a cultural program within a commercial experience. A typical struggle for theaters is how to design a building that will remain active even when there are no performances. Energy Hall is located on a smaller urban scale of a few blocks and four buildings – the sphere in front and retail buildings on both sides. If one of the four buildings is inactive, and uninteresting, the pedestrian experience through this short enclosed city street is affected.

The theater includes a working stage with wings, technical galleries, and a rear stage. The stage is serviced from a sub-level loading dock for deliveries in smaller trucks. Deliveries in large trucks are serviced from a stage-level loading area at the Back of House. The theater utilizes a fixed seating system and will be used for a range of performance types including but not limited to musical performances, physical performances, and film exhibitions. The building program includes public areas, an auditorium, a main stage, technical areas, and performance support spaces.

A public area, which frames and encloses the auditorium, the stage, and the technical areas was created between the glass envelope and the theatrical active volume skin of the building. This area becomes an active space that can be used even when the theater is not open. The skin of the theatrical space is designed as an active, programmable, and animated membrane that can remain active and animate the “theater” though the day, night, and even when there are no performances.

In the post-expo legacy mode of the site, Energy Hall will become a national jewel that will allow Expo City and the Astana community to enjoy urban and cultural life throughout the year, despite the extreme local weather. Cultural programs are critical to all societies and Energy Hall will be the performance venue that will be a continuous contribution to the city and surrounding region.

Energy Hall will also be a highly-sustainable building. The façade will be built with high-performance glass that is triple-glazed passive house certified. Other energy reduction strategies that will be used in Energy Hall include hyper-insulated radiant floors; a hyper-insulated roof cavity; reclaimed water for toilet flushing; and responsive lighting controls to maximize daylighting. Additionally, 50% of Energy Hall's roof will have PVs for the production of renewable energy.











