

DESIGN OVERVIEW



Thanks to over 30 years of industry leading global experience, AVK are at the forefront of power technology. Our solutions support our clients critical power needs across the widest range of applications, delivered by the most trusted team in the industry.

Utilising our years of experience developing complex data centre power solutions, our design and consultancy team assess and create a solution that meets the best power availability and sustainability requirements of the client.

The sole focus of AVK Energy Solutions is to challenge the way energy generation, in both standby and prime forms, is delivered upstream. AVK Energy harnesses the power of our global strength and experience, to deliver the same levels of service and support all of our clients have come to expect from the leaders in complete critical power solutions.



- ✓ AVK Energy Solutions are a design consultant for the complete energy centre – taking the initial design stemming from employers’ requirements to a final stage 4 design which AVK would then deliver.
- ✓ Prior to entering a Pre-Construction Service Agreement (PCSA), AVK Energy Solutions will submit a price and programme based on the stage 2 design.
- ✓ AVK Energy Solutions will submit the Stage 4 design for review and acceptance by the client (or clients representatives).
- ✓ AVK Energy Solutions has established agreements with multiple technology manufacturers which we can assess throughout the process. Our vendor agnostic status enables complete visibility of the very best solutions to meet the design requirements, enabling us to drive best value whilst remaining in the design envelope.



Typical list of deliverables under PCSA:

- Technology review - with consideration to the clients requirements,
- Full review of the permitting and confirm compatibility
- Review of the clients functional design specification
- Employers requirements to be reviewed before progressing to stage 4 design
- Supporting the client with their applications to the Electrical and Gas authorities
- Liaison with other members of the professional team and attendance at design meetings.
- Provide a fixed price for main contract delivery with full breakdown of costs
- Provision of a procurement plan - in particular, long lead items
- Provision of a project construction programme
- Provide the information required for a grid connection agreement (NC5)
- Develop a full FDS for the energy centre (based on the agreed overall FDS)
- Provide full layout and equipment loadings and liaise with the architect/civil designers for the building design
- Completion of HAZOP/DSEAR assessments
- Full design and Tech Subs of the generator sets including engines, alternators, control and set auxiliaries.
- Full design and Tech subs of fuel systems and storage.
- Full design and Tech subs of exhaust systems and flues.
- Full design and Tech subs of MV switchgear upto an agreed point of connection to Data centres
- Full design and Tech subs of control systems including synchronisation and energy centre scada system
- Full design and Tech subs of heat rejection and associated mechanical systems.
- Details of black start procedures
- Full 3D model of detailed design

For more information please
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