

Project	SHAKER Scope of Work
<p>Kafr El Zayat 500/220/66kV S/S 66kV interconnection OHTL's</p> <p>- Kafr El Zayat 500/220/66kV S/S – Basyoon 66/11kV S/S, 2Km.</p> <p>-Kafr El Zayat 500/220/66kV S/S – Petrol 66/11kV S/S, 2.5Km.</p>	<ul style="list-style-type: none"> • Transmission line routing • Soil investigation, topographical route survey, TL profile and tower selection and spotting. • Foundations design • Calculations of stringing tables. <p>Client: Egyptian Electricity Transmission Company, Delta Zone.</p>
<p>Re-routing of 10Km of El Zaaarana- El Sokhna 220kV OHTL.</p>	<ul style="list-style-type: none"> • Transmission line routing • Soil investigation, topographical route survey, TL profile and tower selection and spotting. • Foundations design • Calculations of stringing tables. • Technical specifications, BOQ and tender documents. • Bid evaluation and assistance in contract negotiations and award. • Construction supervision <p>Client: Tiba for Contracting and Touristic Investment</p>
<p>El Gammal 220/22kV S/S 220kV interconnection OHTL, 5Km,by looping single circuit of El Kuraimat- 6 October 220kV OHTL in/out.</p>	<ul style="list-style-type: none"> • Transmission line routing • Soil investigation, topographical route survey, TL profile and tower selection and spotting. • Foundations design • Calculations of stringing tables. • Technical specifications, BOQ and tender documents. • Bid evaluation and assistance in contract negotiations and award. • Construction supervision <p>Client: New Giza for Utilities and Infrastructure</p>
<p>Double circuit 220KV OHTL I/O, 14 Km to connect Egyptian Propylene and Poly Propylene 220kV S/S by looping of El Reswa – Awlad Hamam 220kV OHTL in/ out.</p>	<ul style="list-style-type: none"> • Transmission line routing • Soil investigation , topographical route survey , TL profile and tower selection and spotting . • Foundations design • Calculations of stringing tables . • Technical specifications , BOQ and tender documents . • Bid evaluation and assistance in contract negotiations and award . • Construction supervision <p>Client: Egyptian Propylene and Poly -Propylene Company</p>

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<p>El Gouna - Hurgada Middle 66KV OHTL, 36 Km</p>	<ul style="list-style-type: none"> • Topographic survey , OHTL routing , path profile, tower spotting, stringing tables , soil investigation , towers and foundations design . Preparation of tender documents , bids evaluation and assistance in contracts award . • Construction management and supervision . <p>Client: ORASCOM Hotels and Development . (Under Construction)</p>
<p>220 kV OHTL I/O, 3 Km to connect Uptown Cairo (Zahraa El Maadi) 220/22 kV S/S by looping of Basateen - Cairo East 220kV OHTL in/out.</p>	<ul style="list-style-type: none"> • Topographic survey , OHTL routing , path profile, tower spotting, stringing tables , soil investigation , towers and foundations design . Preparation of tender documents , bids evaluation and assistance in contracts award . • Construction management and supervision . <p>Client: EMAAR Misr for Development (Design Phase Completed)</p>
<p>220 kV OHTL I/O 1 Km to connect Low Cost Housing 66/22 KV S/S by looping of 6th of October - El Sheikh Zayed 220kV OHTL in/out .</p>	<ul style="list-style-type: none"> • Topographic survey , OHTL routing , path profile, tower spotting, stringing tables , soil investigation , towers and foundations design . Preparation of tender documents , bids evaluation and assistance in contracts award . • Construction management and supervision . <p>Client: ORASCOM Housing Communities . (Design Phase Completed)</p>
<p>Zaafarana - Hurgada 220 KV OHTL, 300 Km</p>	<ul style="list-style-type: none"> • Topographical route survey , TL profile and tower spotting . • Soil investigation , towers design , foundation design . • Calculations of stringing tables <p>Client: Egyptian Electricity Transmission Company</p>
<p>Marasi 220/22 kV Double circuit 220kV OHTL, 1.5 km Marasi - El Omayed And Double circuit 220kV OHTL, 1.5 km Marasi - Marsa Matruh</p>	<ul style="list-style-type: none"> • Topographic survey , OHTL routing , path profile, tower spotting, stringing tables , soil investigation , towers and foundations design . Preparation of tender documents , bids evaluation and assistance in contracts award . • Construction management and supervision . <p>Client: Emaar Misr for Development (Design Phase Completed)</p>

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<ul style="list-style-type: none"> • Egyptian Cement Company • 220KV 2x4 Km double circuit Overhead Transmission Line connecting the Egyptian Cement Company 220/11 KV S/S to Attaka – Katameia 220 KV O.H.T.L 	<ul style="list-style-type: none"> • Preparation of technical specifications and tender documents. • Bids evaluation and assistance in contract negotiations and award.
<ul style="list-style-type: none"> • Interagro Nubaria Farm 22 KV Overhead Primary Distribution Network - 8Km 	<ul style="list-style-type: none"> • Route survey, poles spotting, stringing tables and foundation design. • Material purchase and construction specifications. • Evaluation of offers, and assistance in contract negotiations and award. • Construction supervision.
<ul style="list-style-type: none"> • 190 Km 66 KV OHTLs in Algeria 	<ul style="list-style-type: none"> • Transmission line design including revision of topographical survey, conducting tower spotting, stringing tables, foundation design and tower design review. • Client: Hideleco
<ul style="list-style-type: none"> • Abu Zaabal Darfala Factory 66 KV O.H.T.L. – 8 Km 	<ul style="list-style-type: none"> • Topographic survey, tower spotting, calculation of stringing tables, foundation design, supervision of construction and testing and commissioning. Client: ABB.
<ul style="list-style-type: none"> • El Kaser /El Bouira 220 Kv T.L. - 40Km (Algeria) 	<ul style="list-style-type: none"> • Tower spotting and stringing tables
<ul style="list-style-type: none"> • ANA 15 Kv O.H.L. (Afganistan) 	<ul style="list-style-type: none"> • Over head primary distribution line design revision • Client : Contrac International
<ul style="list-style-type: none"> • Using Prestressed Concrete Poles in Distribution Network in Sudan 	<ul style="list-style-type: none"> • Poles configurations design • Load trees • Stringing tables
<ul style="list-style-type: none"> • Revision of Technical Specification for the Distribution Network 	<ul style="list-style-type: none"> • Revision of the technical specification of the distribution network
<ul style="list-style-type: none"> • 220 kv Interance of New Quesna 220/66/11 kV Substation 	<ul style="list-style-type: none"> • Load tress • Stringing table • Client: Egyptian Electricity Transmission Company Delta

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<ul style="list-style-type: none"> Old Tebbin Power Station Yard 66KV Outgoing Transmission Lines 	<ul style="list-style-type: none"> Lines survey and profile Tower spotting Stringing tables Foundation design Client: Egyptian Electricity Transmission Company, Cairo Zone.
<ul style="list-style-type: none"> Cairo 500 / Sadat / Bostan Existing 220 kV O.H.T.L.(100km) 	<ul style="list-style-type: none"> Lines survey and profile Tower inspection Stringing tables foundation design Client: Egyptian Electricity Transmission Company, Alexandria and West Delta Zone.
<ul style="list-style-type: none"> Cairo West / Motamadeia 220 kV O.H.T.L. (6Km) 	<ul style="list-style-type: none"> Topographical survey Geological works Foundation design Stringing tables Client: Egyptian Electricity Transmission Company, Cairo Zone.
<ul style="list-style-type: none"> Interconnection of Kuraimat 66 kV S/S by one circuit of Wasta/East BeniSuef O.H.T.L. (5Km) 	<ul style="list-style-type: none"> Line profile and stringing tables Client: Egyptian Electricity Transmission Company, Cairo Zone.
<ul style="list-style-type: none"> 66KV Interconnection of New Elleitly S/S (4Km) 	<ul style="list-style-type: none"> Topographical and geological works Tower spotting, foundation design and stringing tables Client: Egyptian Electricity Transmission Company, Cairo
<ul style="list-style-type: none"> Borg El Arab / El Omaied Existing 220 KV O.H.T.L. (35Km) 	<ul style="list-style-type: none"> Measuring the inclination of 22 220 KV towers to study the behavior of steel structure in windy area. Client: Egyptian Electricity Transmission Company, Alexandria and West Delta Zone.
<ul style="list-style-type: none"> Modification of 66 KV Transmission Lines Routs in El Maasara Habitated Area, 6 Km 	<ul style="list-style-type: none"> Topographical survey, line profile, tower spotting and stringing tables. Client: Egyptian Electricity Transmission Company, Cairo Zone.

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<ul style="list-style-type: none"> Flashflood Protection for 48 Towers. Ras-Sedr / Abourdees 220KV Transmission Line 	<ul style="list-style-type: none"> Tower location investigation for designing the suitable protection for each Tower. Client: Egyptian Electricity Transmission Company, Canal Electricity Zone.
<ul style="list-style-type: none"> Surveying Works of 220 KV Transmission Line in Trabulus/El Toubiya, Al Zahraa and Al Hirah, 40 Km In Lybia 	<ul style="list-style-type: none"> Topographical survey, line profile, tower spotting and stringing tables. Client: ELEJECT
<ul style="list-style-type: none"> Talkha P.S – Sandoub 220 KV, 12 Km OHTL 	<ul style="list-style-type: none"> Study for increasing of the transmission capacity Client: Egyptian Electricity Transmission Company, Delta
<ul style="list-style-type: none"> Zagazig– Bahteem 220 KV OHTL, 65 Km 	<ul style="list-style-type: none"> Study for increasing of the transmission capacity Client: Egyptian Electricity Transmission Company, Canal
<ul style="list-style-type: none"> New 10th of Ramadan - Old 10th of Ramadan 220 KV OHTL, 20 Km 	<ul style="list-style-type: none"> Study for increasing of the transmission capacity Client: Egyptian Electricity Transmission Company, Canal
<ul style="list-style-type: none"> 66 KV OHTLs in Cairo Zone, 260 Km 	<ul style="list-style-type: none"> Study for increasing of the transmission capacity
<ul style="list-style-type: none"> East Cairo / Basateen 220 KV OHTLs , 13 Km 	<ul style="list-style-type: none"> Study for increasing of the transmission capacity
<ul style="list-style-type: none"> West Cairo / El Motamadeia 220 KV OHTLs , 6 Km 	<ul style="list-style-type: none"> Study for increasing of the transmission capacity Client: Egyptian Electricity Transmission Company, North
<ul style="list-style-type: none"> Cairo South / Hadabet Alahram / Cairo 500 OPGW 	<ul style="list-style-type: none"> Topographical survey, line profile, tower spotting and stringing tables.
<ul style="list-style-type: none"> Talkha / Kafr El Shiekh 220 KV OHTL 52 Km 	<ul style="list-style-type: none"> Study for increasing of the transmission capacity Client: Egyptian Electricity Transmission Company, Delta
<ul style="list-style-type: none"> Belbies Al Badila / Old Abou Zaabal 66 KV OHTLs , 23.5 Km 	<ul style="list-style-type: none"> Study for increasing of the transmission capacity Client: Egyptian Electricity Transmission Company, Canal Zone.

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<ul style="list-style-type: none"> Zagazig 220 kV S/S 	<ul style="list-style-type: none"> Development of 220 kV Bus Bar (from 390/94 ACSR to 2*405 AAAC)
<ul style="list-style-type: none"> El Tal El Kbeer 66 kV S/S 	<ul style="list-style-type: none"> Modification of existing approach to the S/S from U.G. cables to OHTL
<ul style="list-style-type: none"> Bawat 123/11 KV S/S El Madinah, KSA 	<ul style="list-style-type: none"> Preparation of design calculations and review the workshop drawings for two level T-OFF gantry structure including design of gantry structure, anchor bolts, base plates and foundation. Client: ElectroTechnique
<ul style="list-style-type: none"> ZagazigQenayat 66KV OHTL, 6 Km 	<ul style="list-style-type: none"> Study for increasing of the transmission capacity Client: Egyptian Electricity Transmission Company – Canal Zone
<ul style="list-style-type: none"> Zaafarana – Hurgada 220 KV OHTL, 260 Km 	<ul style="list-style-type: none"> Soil investigation, topographical route survey, TL profile and tower spotting. Towers design, foundation design and calculations of stringing tables Client: Egyptian Electricity Transmission Company
<ul style="list-style-type: none"> Abo-Tieg 66/11 KV 2x25 MVA S/S 	<ul style="list-style-type: none"> - Soil investigation Client: Egyptian Electricity Transmission Company
<ul style="list-style-type: none"> Kfr El Zaiat – El Atf 220 kV OHTL, 80 KM 	<ul style="list-style-type: none"> Soil investigation, topographical route survey, TL profile and tower spotting. Towers design, foundation design and calculations of stringing tables Client: Egyptian Electricity Transmission Company
<ul style="list-style-type: none"> Old Asher– Abo Zabal 220 kV OHTL 50 	<ul style="list-style-type: none"> Study for increasing of the transmission capacity Client: Egyptian Electricity Transmission Company
<ul style="list-style-type: none"> Kfr El Zaiat 500/220/66 kV S/S 	<ul style="list-style-type: none"> - Soil investigation Client: Egyptian Electricity Transmission Company
<ul style="list-style-type: none"> El Abasa 66 kV S/S 	<ul style="list-style-type: none"> Development (from H-scheme system to double Bus Bar system) Client: Egyptian Electricity Transmission Company