

Company Profile

2026

REDEFINE PERFORMANCE WITH DSE TECHNOLOGIES, INC.
Engineered For The Toughest Sites.

An aerial photograph showing a large array of blue solar panels installed in a field. The panels are arranged in a grid pattern, with some trees interspersed among them. The background is a dense, green forest. The image is used as a background for the document's cover and title page.

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About DSE Technologies, Inc.

DSE Technologies, Inc. is a company that specializes in providing electrical power solutions specifically tailored to the needs of the Oil & Gas industries. Our services and products are designed to meet the unique challenges and demands of these industries, which often operate in harsh and remote environments requiring reliable and robust power systems. DSE Technologies, Inc. serves as an example of how specialization and innovation can lead to success in a highly demanding market.



TAILORED SOLUTIONS FOR SPECIFIC NEEDS

At DSE Technologies, Inc., we understand that the Oil & Gas industries have unique power requirements. We provide customized solutions that are precisely adapted to meet the unique needs of our customers.



INNOVATION IN CHALLENGING ENVIRONMENTS

Our products are designed to perform reliably in some of the most challenging environments on the planet, and our equipment is optimized for efficiency in resource-scarce areas.



FLEXIBILITY AND SCALABILITY

One of the strengths of DSE Technologies, Inc. is our ability to offer modular power systems that can be scaled and adapted to different operational needs.



LEVERAGING PATENTED TECHNOLOGIES

Our portfolio of patented technologies, including automated load management and remote monitoring systems, demonstrates our commitment to continuous improvement in the energy sector.



RELIABILITY AND REPEATABILITY OF RESULTS

At DSE Technologies, Inc., reliability is not just a feature; it is a fundamental principle that guides every aspect of our product development. Our products are engineered for reliable, consistent performance, keeping your operations smooth, even in the toughest conditions. The ability to deliver reliable, repeatable results is what sets DSE Technologies, Inc. apart and is a key factor in our long-standing partnerships with clients in the Oil & Gas industry.

“

At DSE, we are committed to
excellence and integrity in all
that we do.

We are a **progress-driven company that leverages technology** to craft innovative solutions that enhance the way people live and work, driving sustainable growth across various industries in several impactful ways.



OUR VISION

To drive progress through cutting-edge technology, empowering individuals and businesses to achieve their goals with efficiency and creativity. We strive to be champions of collaboration, sustainability, and inclusivity, while upholding excellence and integrity in all our endeavors.



OUR MISSION

To harness advanced technology to enhance operations in remote and harsh environments, driving sustainable growth across industries. We are committed to innovation, quality, and customer satisfaction, focusing on optimizing energy use, managing resources, and promoting sustainable practices to create cutting-edge solutions that foster progress, connectivity, and positive societal change.



Our Patented Technologies

DSE Technologies, Inc. has developed various patented technologies to support the demanding needs of the Oil & Gas industry.

Our patents reflect a **deep understanding of the sector's challenges**, particularly in providing reliable electrical power in harsh and remote environments.

OUR PATENTS INCLUDE



01

MODULAR POWER SYSTEMS

Designed to be easily transported and assembled on-site, offering flexibility and scalability for operations that require different power outputs depending on the stage or location of extraction and processing.



02

ENHANCED COOLING SYSTEMS

Developed to ensure the longevity and efficiency of power systems in high-temperature environments. These systems use advanced materials and innovative design to dissipate heat effectively, preventing system failures.



03

AUTOMATED LOAD MANAGEMENT

Allows for the dynamic allocation of power based on real-time demand, reducing fuel usage while optimizing system power consumption and reducing emissions. It is particularly useful in remote locations where fuel supply may be limited, and where efficiency is paramount.



04

RUGGEDIZED CONTROL PANELS

Engineered to withstand extreme weather conditions. These control panels are designed with user-friendly interfaces that allow operators to manage power distribution and system diagnostics on site or from a remote location.



05

REMOTE MONITORING & DIAGNOSTICS

Enables real-time monitoring of power systems from any location, providing crucial data and alerts that help prevent downtime and optimize maintenance schedules.



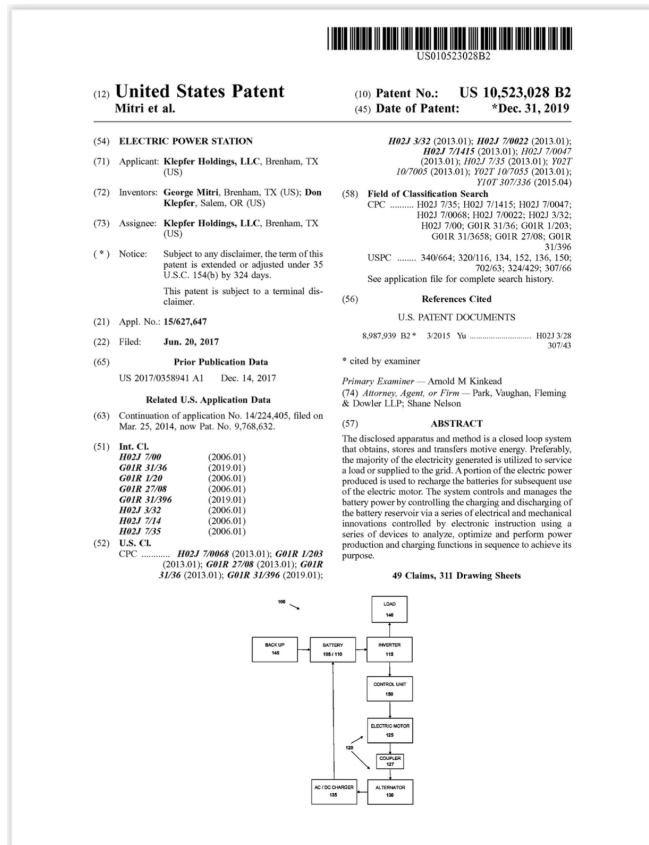
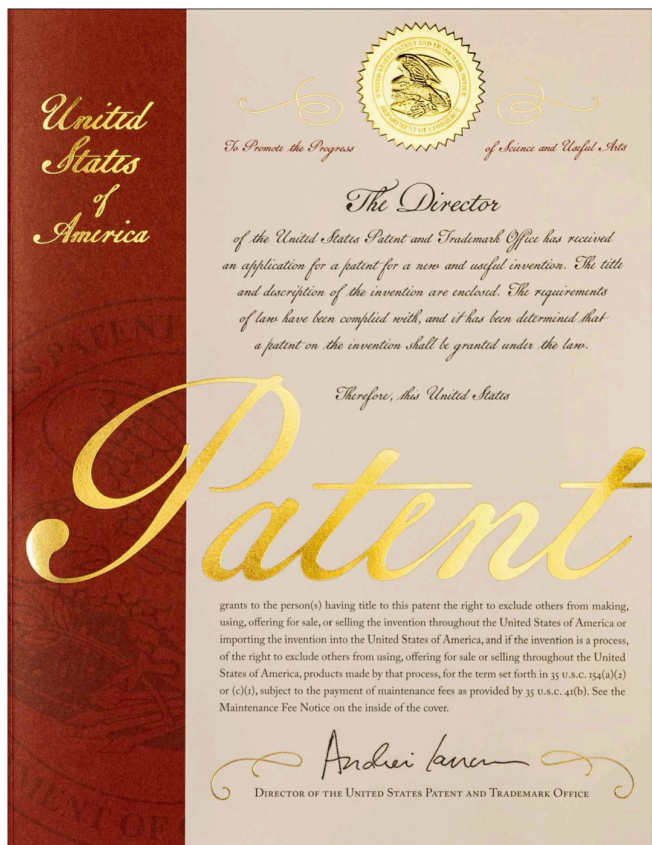
A list of DSE Technologies, Inc.
US Patents and Patents Pending
for various unique and useful technologies.

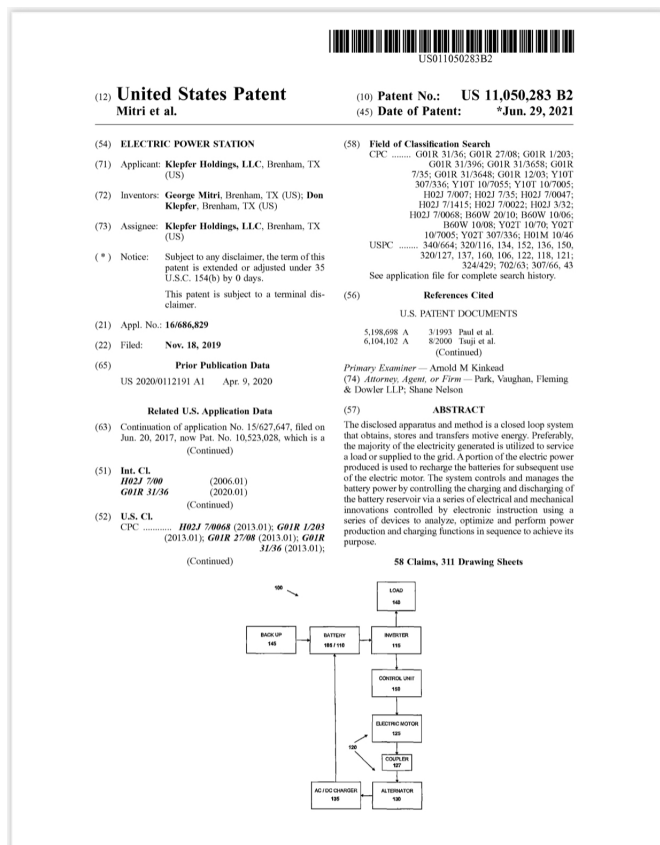
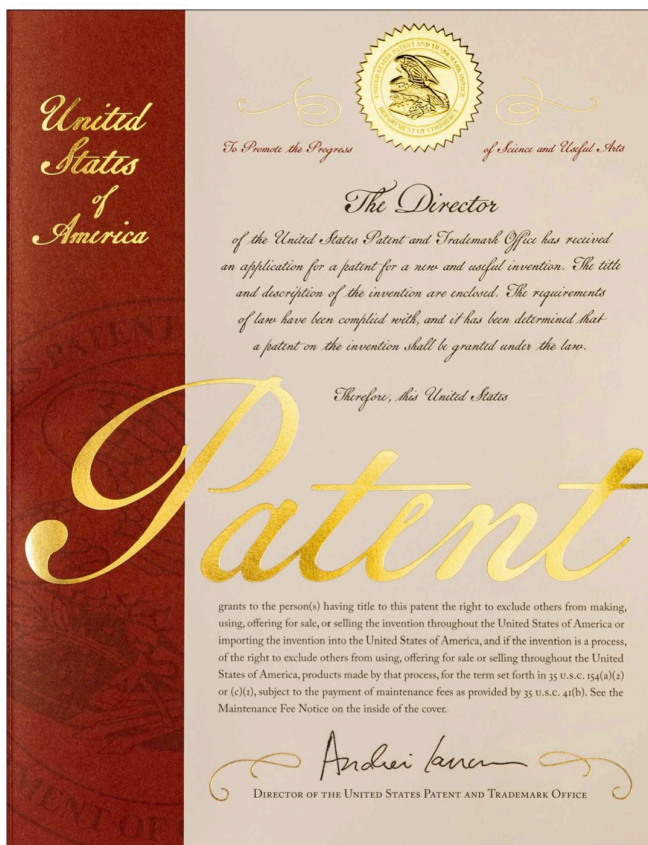
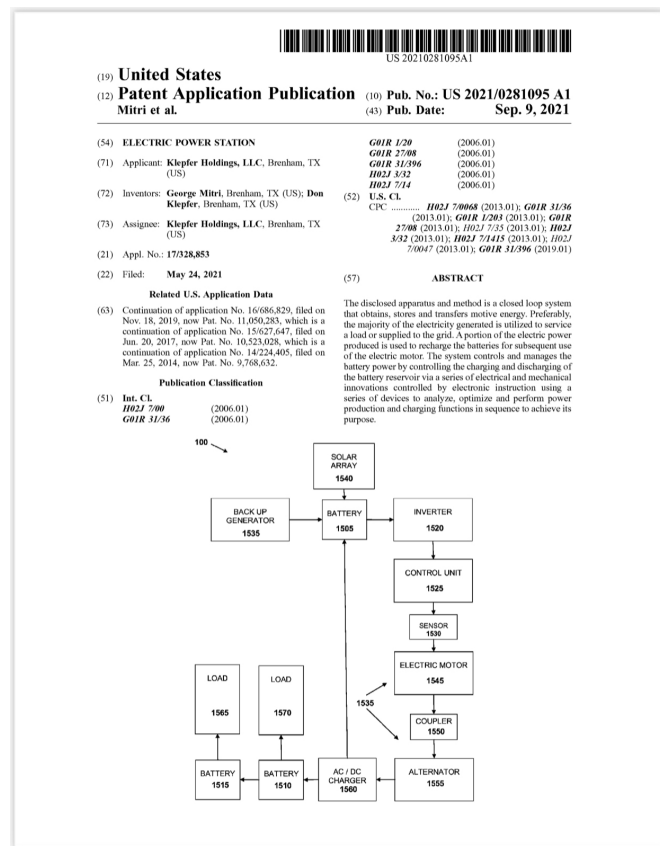
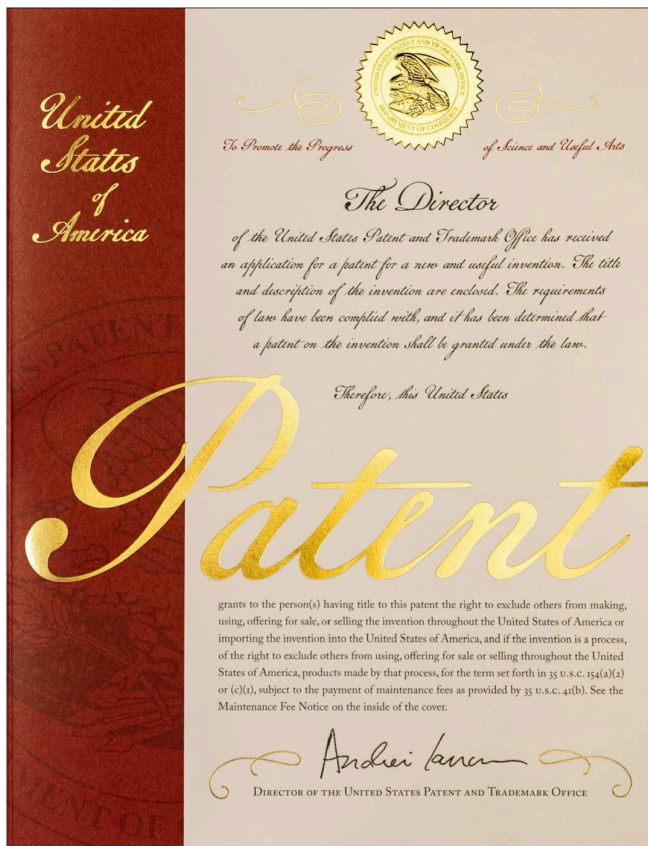
These technologies have been incorporated and utilized with our projects. The use of our technologies has been instrumental in enhancing the performance of our customers' field operations.

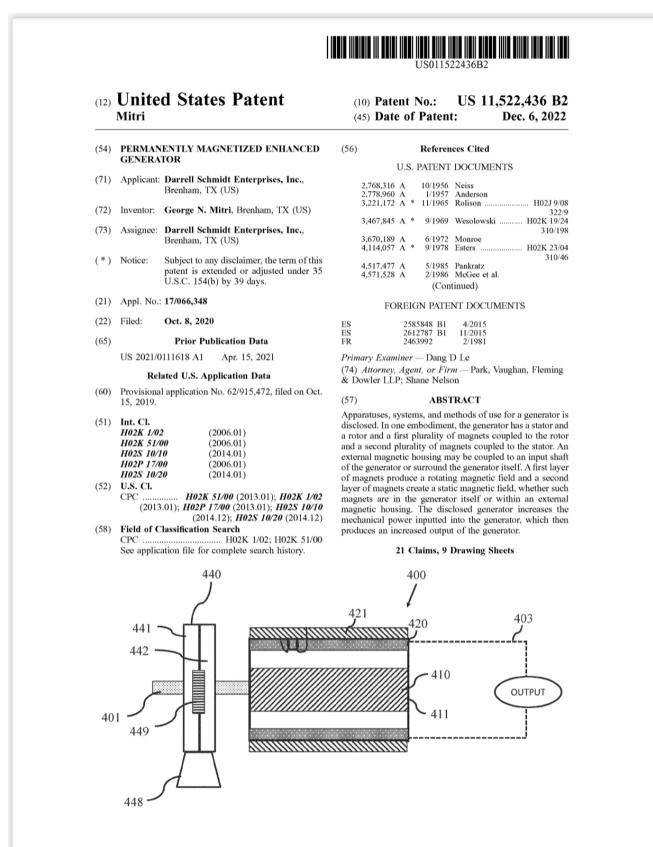
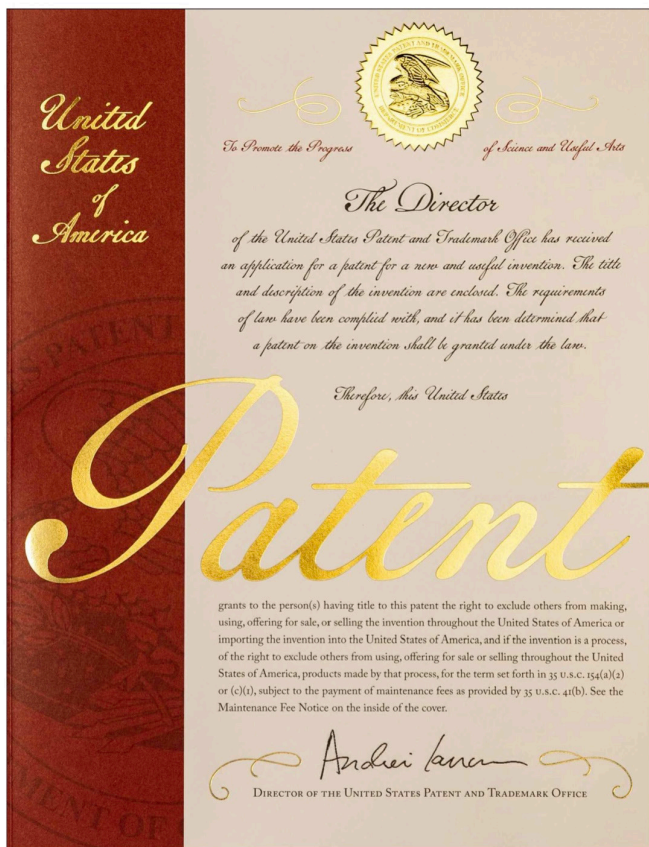
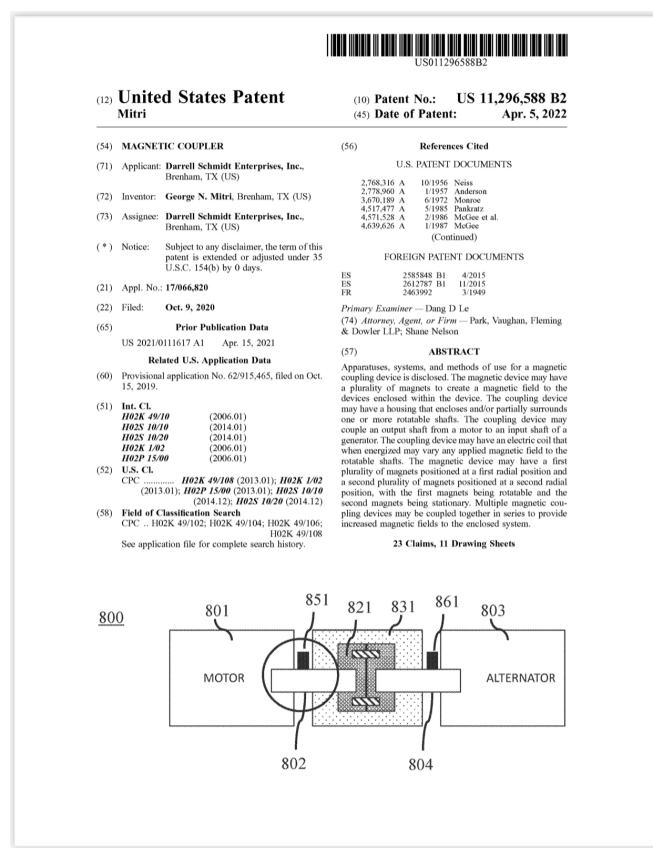
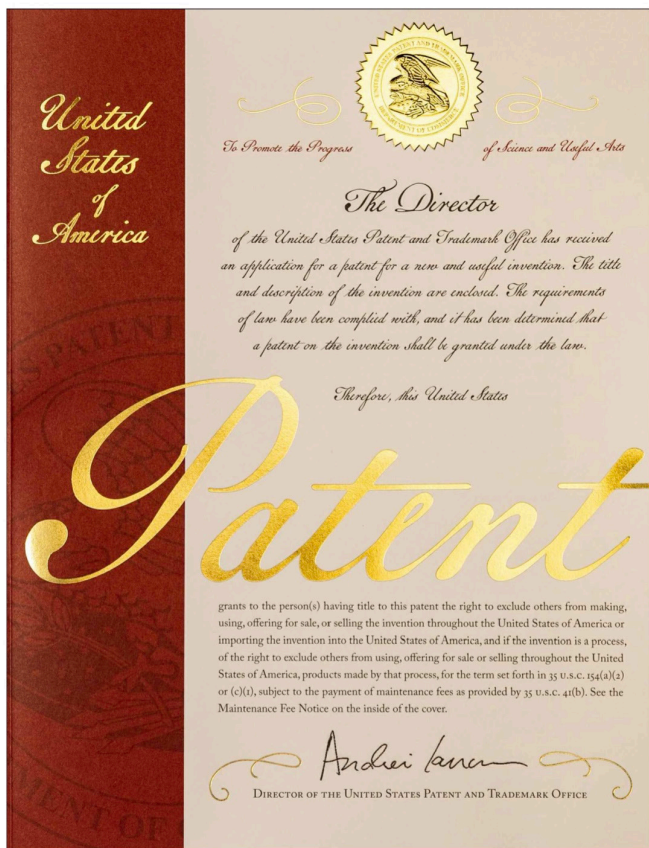


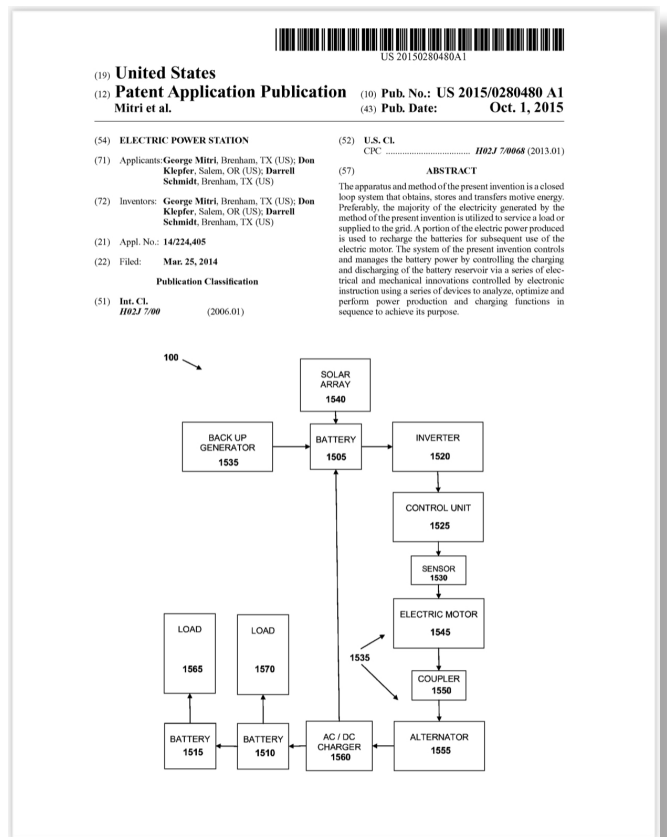
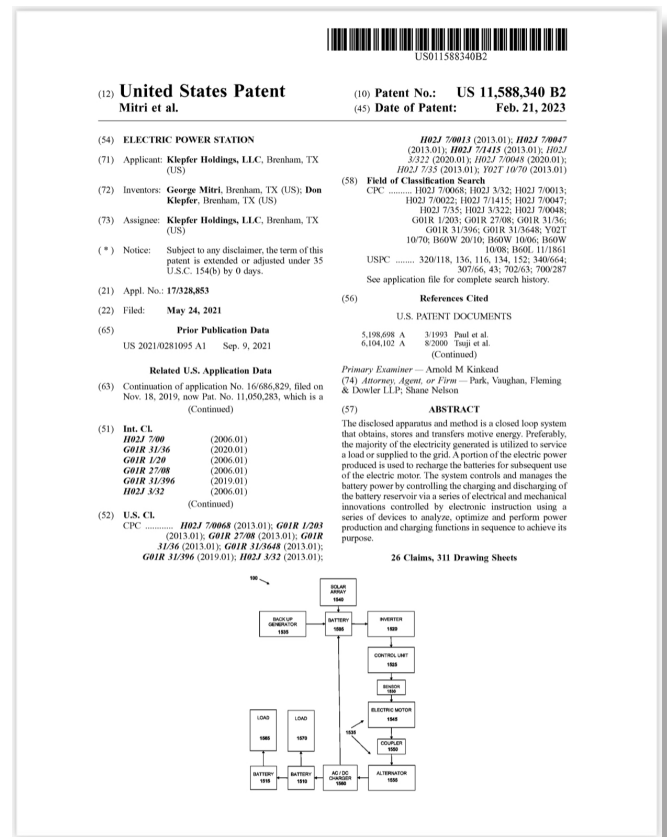
Our Patents & Inventions

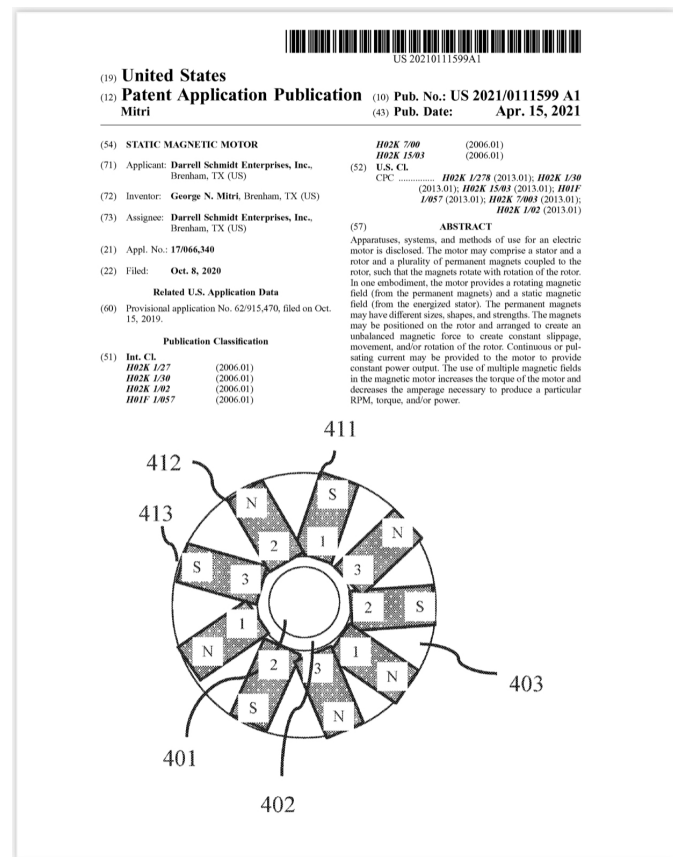
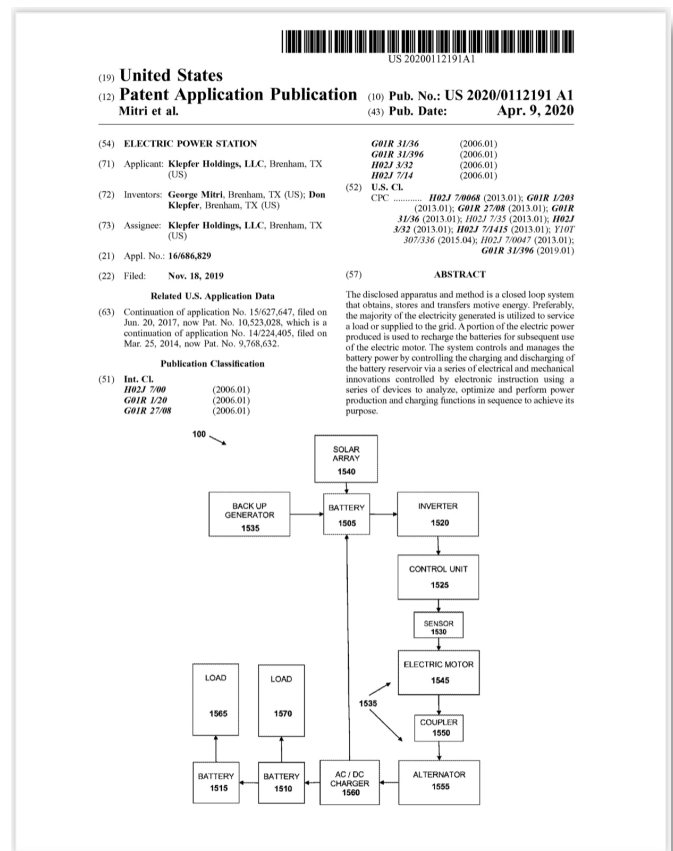












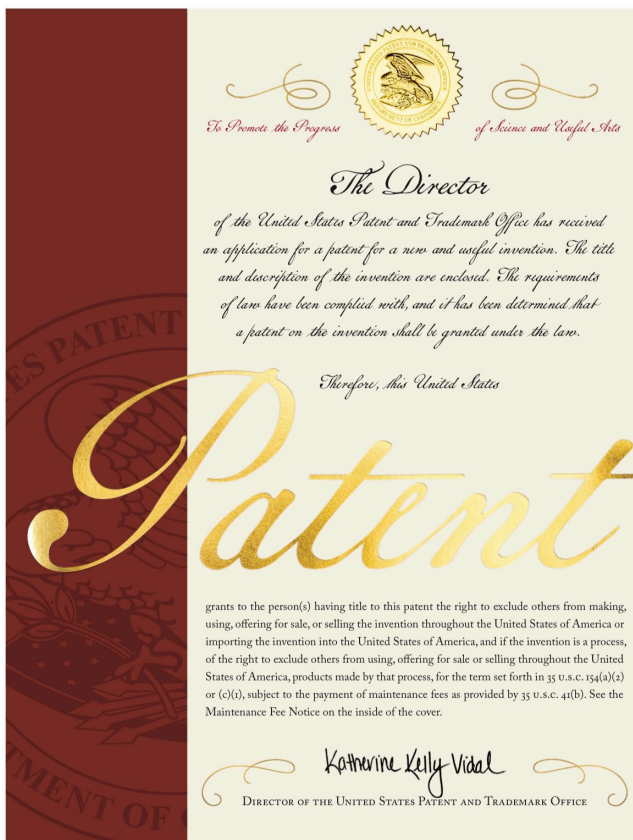


US 2021011615A1

(19) **United States**
(12) **Patent Application Publication** (10) **Pub. No.: US 2021/0111615 A1**
(43) **Pub. Date: Apr. 15, 2021**

(54) **MAGNETIC ELECTRIC POWER STATION** *H01M 10/46* (2006.01)
H02S 40/38 (2006.01)
(71) Applicant: **Darrell Schmidt Enterprises, Inc.**, Brenham, TX (US) (52) **U.S. CL.**
H02K 21/04 (2013.01); *H02K 1/17* (2013.01); *H02S 40/38* (2014.12); *H01M 10/46* (2013.01); *H02K 1/27* (2013.01)
(72) Inventor: **George N. Mitri**, Brenham, TX (US)
(73) Assignee: **Darrell Schmidt Enterprises, Inc.**, Brenham, TX (US) (57) **ABSTRACT**
(21) Appl. No: **17/066,354**
(22) Filed: **Oct. 8, 2020**
Related U.S. Application Data
(60) Provisional application No. 62/915,474, filed on Oct. 15, 2019.
Publication Classification
(51) **Int. CL.**
H02K 21/04 (2006.01)
H02K 1/17 (2006.01)
H02K 1/27 (2006.01)

The system and method of the present disclosure is a stand-alone power generation and production system that obtains, stores, and transfers motive energy by utilizing one or more magnetic devices. Electrical energy is provided from a battery to a motor, mechanical energy is provided from the motor to a generator with the aid of a coupling device, and electrical energy is produced from the generator, which may be routed back to the batteries or to an external load. Any one or more of the motor, coupler, and generator may be a magnetically enhanced device with the use of specially configured permanent magnets to create enhanced magnetic fields. The enhanced magnetic devices increase the power output based on the same power input, and may require less power input to produce the same power output.

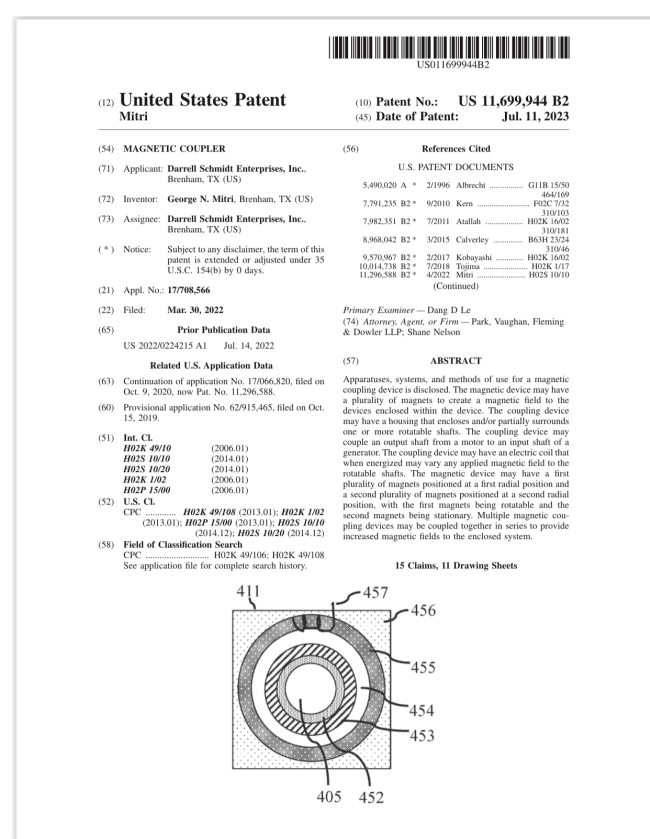
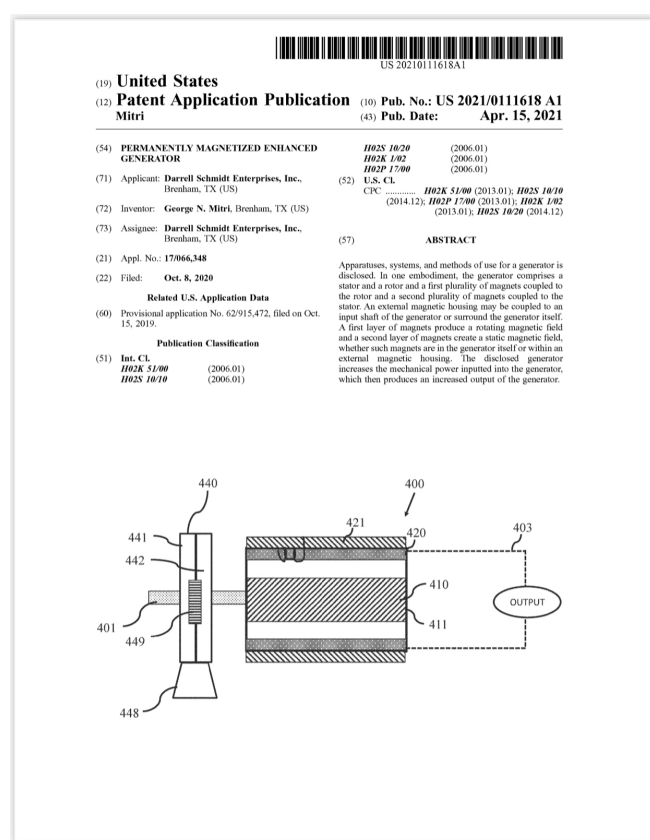


US 2021011617A1

(19) **United States**
(12) **Patent Application Publication** (10) **Pub. No.: US 2021/0111617 A1**
(43) **Pub. Date: Apr. 15, 2021**

(54) **MAGNETIC COUPLER** *H02K 1/02* (2006.01)
H02P 15/00 (2006.01)
(71) Applicant: **Darrell Schmidt Enterprises, Inc.**, Brenham, TX (US) (52) **U.S. CL.**
H02K 49/08 (2013.01); *H02S 10/10* (2014.12); *H02P 15/00* (2013.01); *H02K 1/02* (2013.01); *H02S 10/20* (2014.12)
(72) Inventor: **George N. Mitri**, Brenham, TX (US)
(73) Assignee: **Darrell Schmidt Enterprises, Inc.**, Brenham, TX (US) (57) **ABSTRACT**
(21) Appl. No: **17/066,820**
(22) Filed: **Oct. 9, 2020**
Related U.S. Application Data
(60) Provisional application No. 62/915,465, filed on Oct. 15, 2019.
Publication Classification
(51) **Int. CL.**
H02K 49/10 (2006.01)
H02S 10/10 (2006.01)
H02S 10/20 (2006.01)

Apparatus, systems, and methods of use for a magnetic coupling device is disclosed. The magnetic device may have a plurality of magnets to create a magnetic field to the devices enclosed within the device. The coupling device may have a housing that encloses and/or partially surrounds one or more rotatable shafts. The coupling device may couple an output shaft from a motor to an input shaft of a generator. The coupling device may have an electric coil that when energized may vary any applied magnetic field to the rotatable shafts. The magnetic device may have a first plurality of magnets positioned at a first radial position and a second plurality of magnets positioned at a second radial position, with the first magnets being rotatable and the second magnets being stationary. Multiple magnetic coupling devices may be coupled together in series to provide increased magnetic fields to the enclosed system.





of the United States Patent and Trademark Office has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this United States

Therefore, this United States

Patent

grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States of America, products made by that process, for the term set forth in 35 U.S.C. 154(a)(2) or (c)(1), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b). See the Maintenance Fee Notice on the inside of the cover.

Katherine Kelly Vidal

DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE



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Patent

grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States of America, products made by that process, for the term set forth in 35 U.S.C. 154(a)(2) or (c)(1), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b). See the Maintenance Fee Notice on the inside of the cover.

Katherine Kelly Vidal

DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE



(10) Patent No.: US 11,984,747 B2
(45) Date of Patent: *May 14, 2024

(58) **Field of Classification Search**
CPC H02J 7/0068; H02J 3/32; H02J 7/0013;
H02J 7/0047; H02J 7/1415; H02J 3/3222;
H02J 7/0048; H02J 7/35; G01R 2/083;
G01R 31/36; G01R 31/396; G01R 12/001;
G01R 31/3648; Y02T 10/70; G01N
27/416; Y10T 307/336
USPC 700/287; 307/66, 23, 43; 324/429, 126,
324/426; 702/63, 62; 340/664; 320/136;
320/137, 134, 152, 116, 103, 127
See application file for complete search history.

(56)	References Cited			
	U.S. PATENT DOCUMENTS			
11,050,283 B2 *	6/2021	Mitri	H02J 7/0013	
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			320/136	
2015/0197163 A1 *	7/2015	Lofthus	H02J 7/0013	
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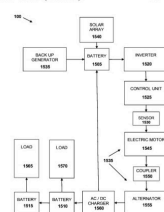
* cited by examiner

Primary Examiner — Arnold M Kinkad
(74) *Attorney, Agent, or Firm* — Park, Vaughan, Fleming
& Dowler LLP; Shane Nelson

(10.10) $\mathcal{A} = \mathcal{A}_1 \cup \mathcal{A}_2$ and $\mathcal{A}_1 \cap \mathcal{A}_2 = \emptyset$.

The disclosed apparatus and method is a closed loop system that obtains, stores and transfers motive energy. Preferably, the majority of the electricity generated is utilized to service a load or supplied to the grid. A portion of the electric power produced is used to recharge the batteries for subsequent use of the electric motor. The system controls and manages the battery power by controlling the charging and discharging of the battery reservoir via a series of electrical and mechanical innovations controlled by electronic instruction using new series of devices to analyze, optimize and perform power production and charging functions in sequence to achieve its purpose.

11 Claims, 311 Drawing Sheets



(12) **Patent Application Publication** (10) **Pub. No.:** US 2024/0218766 A1
Mitri (43) **Pub. Date:** Jul. 4, 2024

(52) **U.S. Cl.**
CPC *E21B 43/126* (2013.01); *E21B 41/00*
(2013.01)

(57) **ABSTRACT**

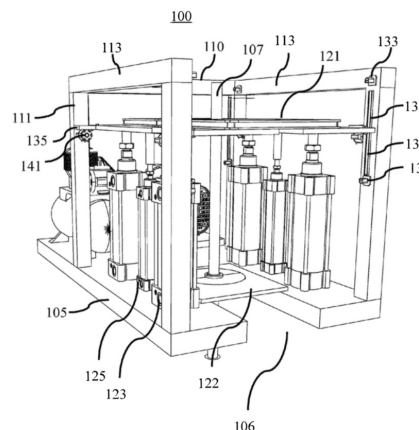
A crude oil lifting system that uses pneumatic and/or hydraulic sources to control vertical operations of a down-hole pipe. The lifting system may have a plurality of lifting

actuators, a plurality of alignment actuators, and a guiding system. A plurality of hydraulic cylinders may be coupled to an attachment platform that is coupled to a sucker rod. Pressurization and de-pressurization of the hydraulic cylinders

ders causes repeated vertical movement of the sucker rod, thereby retrieving oil or gas from a downhole well. A control system may selectively and individually actuate each hydraulic cylinder and/or pneumatic cylinder based on mea-

measurements provided by a plurality of telemetry and/or position sensors. A plurality of permanent or electromagnetic magnets may be utilized to assist in vertical movements of the attachment platform, and a plurality of DC generators

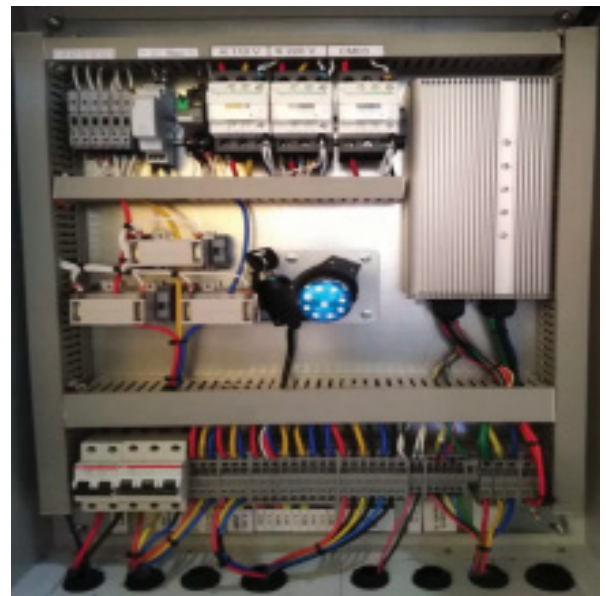
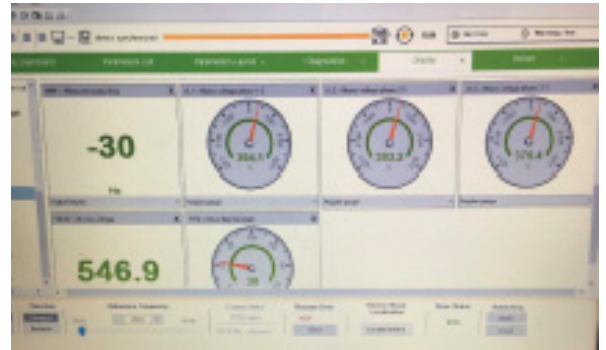
may be utilized to generate power from the vertical movement.



Our Projects

PROJECT LOCATION:
Brenham, TX

Power Generation System in Brenham, Texas. This power unit was designed, assembled, installed and commissioned to serve as a prototype for presentation purposes at the DSE Technologies facilities in Brenham, Texas.



Our Projects

PROJECT LOCATION:
Brenham, TX

Compressed Air System in Brenham, Texas. This unit was designed for presentation purposes and customer testing of qualifications and performance.



Our Projects

PROJECT LOCATION:
Snook, TX

Compressed Air System in Snook, Texas. This project was designed, assembled, installed, and commissioned for an Oil & Gas Company in Texas.



Our Projects

PROJECT LOCATION:
Ledbetter, TX

Compressed Air System in Ledbetter, Texas. This project was designed, assembled, installed, and commissioned for an Oil & Gas Company in Texas.



Our Projects

PROJECT LOCATION:
Caldwell, TX

Power Generation System in Caldwell, Texas. This power unit was designed, assembled, installed, and commissioned to serve as a power unit for the daily operations of the crude oil pump jack for AMK Oil & Gas Company in Texas.



Our Projects

PROJECT LOCATION:
Caldwell, TX

Compressed Air System in Caldwell, Texas. This project was designed, assembled, installed, and commissioned for Summit Pump & Safety, Inc.



Our Projects

PROJECT LOCATION:
Brenham, TX

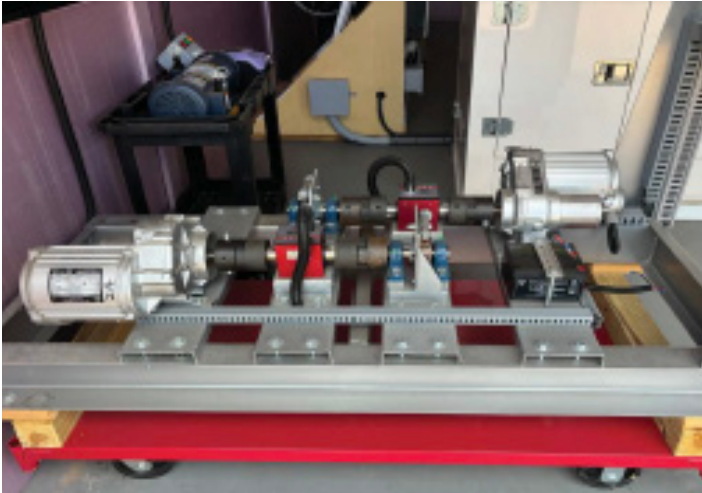
Electrical Power & Compressed Air System in Brenham, Texas. This power generation and compressed air unit was designed, assembled, installed, and commissioned to serve as a demonstration unit for an Oil & Gas Company in Texas.



Our Projects

PROJECT LOCATION:
Brenham, TX

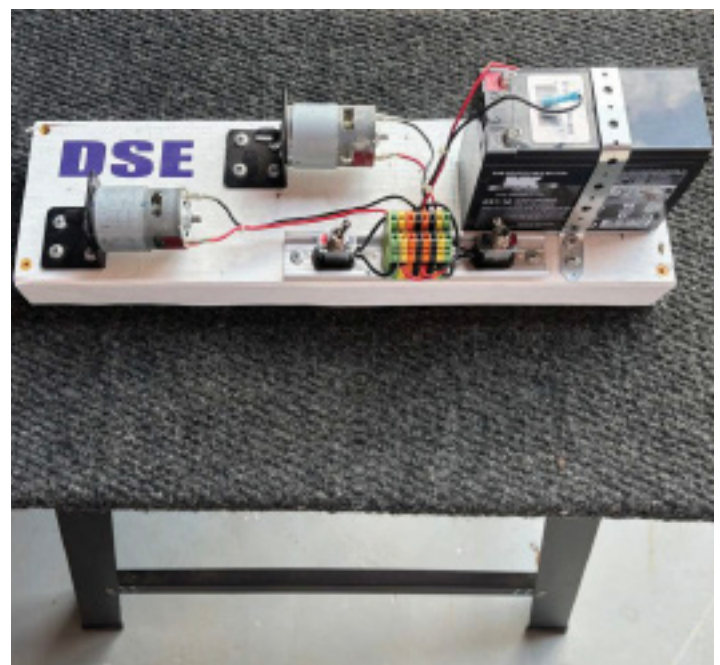
Torque Generation System in Brenham, Texas. This unit was designed, assembled, installed, and commissioned to serve as a comparison between two identical units: one with enhancements and modifications and one without any modifications. This project was prepared for an Irrigation company in Omaha, Nebraska.



Our Projects

PROJECT LOCATION:
Brenham, TX

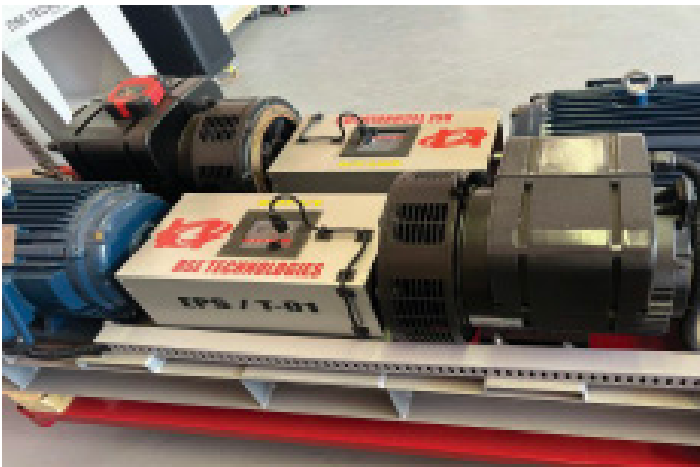
Various Systems at the DSE Laboratories in Brenham, Texas. These units were designed and assembled to serve as prototypes for presentation purposes and to demonstrate how the modified units operate with the integration of our unique patented technologies.



Our Projects

PROJECT LOCATION:
Brenham, TX

Torque Generation System in Brenham, Texas. This unit was designed, assembled, installed, and commissioned to serve as a comparison between two identical units: one with enhancements and modifications and one without any modifications. This project was prepared for an irrigation company in Omaha, Nebraska.



Our Products

FACILITY LOCATION:
Brenham, TX

Various Systems at the DSE Laboratories in Brenham, Texas. These units were designed and assembled to serve as prototypes for presentation purposes and to demonstrate how the modified units operate with the integration of our unique patented technologies.



Our Products

FACILITY LOCATION:
Brenham, TX

Power & Controls Cabinets at the DSE Laboratories in Brenham, Texas. These units were designed and assembled to serve as prototypes for presentation purposes and to demonstrate how the modified units operate with the integration of our unique patented technologies.



Our Products

FACILITY LOCATION:
Brenham, TX

Power & Controls Cabinets at the DSE Laboratories in Brenham, Texas. These units were designed and assembled to serve as prototypes for presentation with the integration of our unique patented technologies. Our specialized HMI programming, which is designed for various applications, can be customized to accommodate our customers' most advanced and specialized requirements.



Our Products

FACILITY LOCATION:
Brenham, TX

Variable Frequency Drives (VFDs) at the DSE Laboratories in Brenham, Texas. These units were designed, configured, and developed to integrate our unique patented technologies with our customers’ existing or new power & control installations.

DSE Variable Frequency Drives (VFDs)

Available in various sizes to accommodate the increasingly stringent motor control requirements of our customers.

Can be configured to meet the customers’ specific field requirements and specifications.

5 HP ———> 2500 HP

DSE Variable Frequency Drives (VFDs)

DSE-VFD	5 HP	DSE-VFD	175 HP
DSE-VFD	7.5 HP	DSE-VFD	200 HP
DSE-VFD	10 HP	DSE-VFD	225 HP
DSE-VFD	15 HP	DSE-VFD	250 HP
DSE-VFD	20 HP	DSE-VFD	275 HP
DSE-VFD	30 HP	DSE-VFD	300 HP
DSE-VFD	40 HP	DSE-VFD	325 HP
DSE-VFD	50 HP	DSE-VFD	350 HP
DSE-VFD	60 HP	DSE-VFD	375 HP
DSE-VFD	75 HP	DSE-VFD	400 HP
DSE-VFD	100 HP	DSE-VFD	425 HP
DSE-VFD	125 HP	DSE-VFD	450 HP
DSE-VFD	150 HP	DSE-VFD	500 HP



Our Products

FACILITY LOCATION:
Brenham, TX

Synchronous Reluctance Motors (SynRM) at the DSE Laboratories in Brenham, Texas.

These units were designed, configured, and developed to integrate our unique patented technologies with our customers’ existing or new power & control installations. DSE Motor sizes are available as small as 5 HP and as large as 2,500 HP.

DSE Synchronous Reluctance Motors (SynRM)

Available in various sizes to accommodate the increasingly stringent motor specifications and requirements of our customers.

Available for delivery to our customers’ warehouses
or operation sites.

5 HP ———> 2500 HP

DSE Synchronous Reluctance Motors (SynRM)

DSE-SynRM	5 HP	DSE-SynRM	175 HP
DSE-SynRM	7.5 HP	DSE-SynRM	200 HP
DSE-SynRM	10 HP	DSE-SynRM	225 HP
DSE-SynRM	15 HP	DSE-SynRM	250 HP
DSE-SynRM	20 HP	DSE-SynRM	275 HP
DSE-SynRM	30 HP	DSE-SynRM	300 HP
DSE-SynRM	40 HP	DSE-SynRM	325 HP
DSE-SynRM	50 HP	DSE-SynRM	350 HP
DSE-SynRM	60 HP	DSE-SynRM	375 HP
DSE-SynRM	75 HP	DSE-SynRM	400 HP
DSE-SynRM	100 HP	DSE-SynRM	425 HP
DSE-SynRM	125 HP	DSE-SynRM	450 HP
DSE-SynRM	150 HP	DSE-SynRM	500 HP



Our Products

FACILITY LOCATION:
Brenham, TX



LARGE SIZE 3 PHASE INVERTER



INVERTER HMI



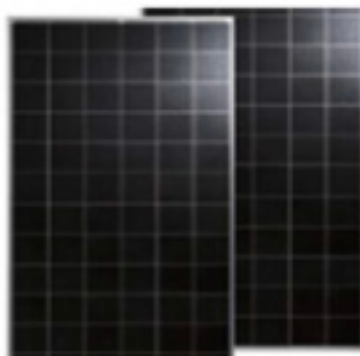
CUSTOMIZED HMI



MID-SIZE 3 PHASE INVERTER



HIGH-CAPACITY LITHIUM BATTERY



PHOTOVOLTAIC SOLAR PANEL




VARIABLE FREQUENCY DRIVES



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