



## DESCRIPTIVE MEMORANDUM



## Disclaimer

This Descriptive Memorandum (this “Memorandum”) is being furnished to a limited number of parties who have expressed an interest in submitting proposals to acquire BTEC Turbines LP (“BTEC” or the “Company”) and/or all of its existing assets. BTEC’s principal assets consist of the Southaven Energy facility and the New Albany Power facility (each respectively a “Plant”, and together, the “Plants”). Southaven Energy consists of four fully operational GE Frame 7EA turbine generators and New Albany Power consists of six fully operational GE Frame 7E turbine generators (collectively the “Assets”). BTEC Turbines LP (“BTEC”), a business substantially owned by The Sterling Group and The Stephens Group (together with senior management, “the Owners”) have retained JP Morgan Securities Inc. (“JPMorgan”), as their exclusive financial advisor to assist with the potential sale of BTEC and/or all of BTEC’s existing assets. This Memorandum has been assembled by the management of BTEC with the assistance of JPMorgan. The sole purpose of this Memorandum is to assist the recipient in deciding whether to proceed with further analysis of this opportunity in accordance with the procedures described below.

This Memorandum does not constitute an offer to sell BTEC or any Asset described in this Memorandum. The Owners reserve the right, in their sole and absolute discretion, to discontinue the sale process at any time, withdraw any Asset from the sale or reject any or all bids with respect to any Asset or the equity interest of BTEC.

This Memorandum summarizes contracts and other information in a manner which is believed to be accurate, but prospective purchasers should refer to the actual contracts for a complete understanding of the contracts summarized in this Memorandum.

While the information provided herein is believed to be accurate and reliable, neither the Owners, nor JPMorgan make any representations or warranties, express or implied, as to the accuracy or completeness of such information. Only those representations and warranties contained in a definitive purchase agreement shall have any legal effect.

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There is no representation, warranty or other assurance that any of the projections will be realized. Prospective purchasers should conduct their own investigation and analysis of the business, data and property described herein.

J.P. Morgan Securities Inc.  
277 Park Avenue  
New York, NY 10172

### Energy Investment Banking Coverage

Sean O’Donnell  
*Head of Generation Coverage*  
sean.odonnell@jpmorgan.com  
(212) 622-6824

**Sid Sinha (primary contact)**  
*Vice President*  
siddhartha.x.sinha@jpmorgan.com  
(212) 622-6210

**Susan Zhang (primary contact)**  
*Associate*  
susan.r.zhang@jpmorgan.com  
(212) 622-6786

Charles Breeden  
*Associate*  
charles.a.breeden@jpmorgan.com  
(212) 622-3432

Ilya Minevich  
*Analyst*  
ilya.g.minevich@jpmchase.com  
(212) 622-7056

Note: Bold shading indicates primary deal contacts

Issued to: \_\_\_\_\_

Date: \_\_\_\_\_

## Table of contents

<b>1. Executive summary</b>	<b>5</b>
Introduction	5
Asset overview	6
Plant and equipment ownership history	6
Key investment highlights	7
Process overview	9
<b>2. BTEC Turbines LP</b>	<b>11</b>
Overview	11
Asset history	11
Service capabilities	11
<b>3. GE 7EA turbines and associated equipment</b>	<b>13</b>
Overview	13
Technical description	14
Operation and maintenance	19
Environmental overview	19
<b>4. GE 7E turbines and associated equipment</b>	<b>21</b>
Overview	21
Technical description	23
Operation and maintenance	26
Environmental overview	27
<b>5. Turbine mobilization process and optional conversions</b>	<b>28</b>
Turbine mobilization process	28
Optional conversions	29
<b>6. Other assets</b>	<b>31</b>
5LA Gas Turbines	31
<b>7. Transaction overview</b>	<b>33</b>
<b>8. Appendix I - photos of GE Frame 7 gas turbines</b>	<b>35</b>
<b>9. Appendix II - site plans</b>	<b>37</b>
Southaven Energy	37
New Albany Power	37



## Table of exhibits

Exhibit 1.1	Company and transaction overview . . . . .	5
Exhibit 1.2	Geographic overview of the assets . . . . .	6
Exhibit 1.3	Comparison of GE Frame 7 gas turbines . . . . .	8
Exhibit 1.4	Key activities related to the assets . . . . .	9
Exhibit 2.1	Ownership history . . . . .	11
Exhibit 3.1	Major equipment summary . . . . .	14
Exhibit 3.2	GE Frame 7EA turbine and equipment specifications summary . . . . .	14
Exhibit 3.3	7EA Gas Turbine Generator (GTG) technical specifications . . . . .	15
Exhibit 3.4	Tested operating performance . . . . .	19
Exhibit 3.5	Southaven Energy permits . . . . .	20
Exhibit 4.1	Major equipment summary . . . . .	22
Exhibit 4.2	GE Frame 7E turbine and equipment specifications summary . . . . .	22
Exhibit 4.3	7E Gas Turbine Generator (GTG) technical specifications . . . . .	23
Exhibit 4.4	Tested operating performance . . . . .	26
Exhibit 4.5	7E remanufacturing summary . . . . .	26
Exhibit 4.6	New Albany Power permits . . . . .	27
Exhibit 5.1	Illustrative 7EA removal time table . . . . .	28
Exhibit 6.1	GE Frame 5LA turbine generator package specifications summary . . . . .	31
Exhibit 6.2	Available optional equipment . . . . .	31
Exhibit 7.1	Regulatory approval requirements . . . . .	33
Exhibit 7.2	Plants legal ownership structure . . . . .	33

# 1. Executive summary

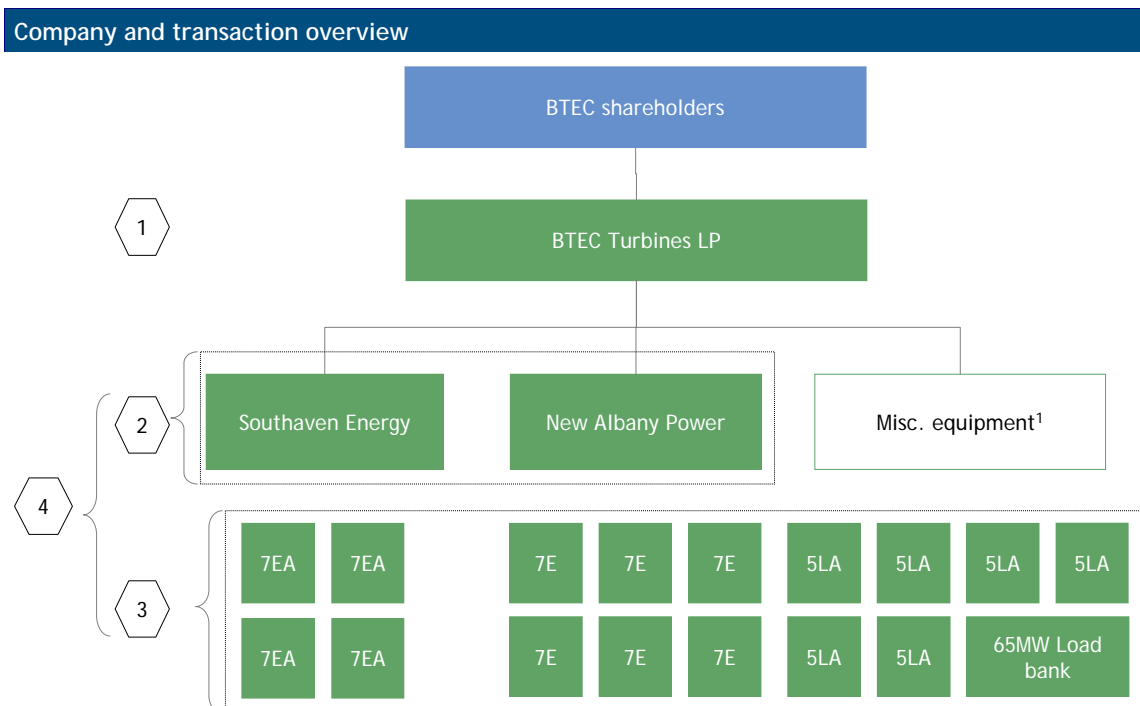
## Introduction

BTEC Turbines LP (“BTEC” or the “Company”), a business substantially owned by The Sterling Group and The Stephens Group (together with senior management, “the Owners”), has retained JP Morgan Securities Inc. (“JPMorgan”) as its exclusive financial advisor to assist with the potential sale of BTEC and/or all of BTEC’s existing assets. BTEC’s principal assets consist of the Southaven Energy facility and the New Albany Power facility (each respectively a “Plant”, and together, the “Plants”). Southaven Energy, which is located in Southaven, Mississippi, consists of four fully operational GE Frame 7EA turbine generators. New Albany Power, which is located in New Albany, Mississippi, consists of six fully operational GE Frame 7E turbine generators. Each of these ten turbine generator units (each a “Unit”, collectively the “Assets”) has an individual complement of ancillary equipment to facilitate standalone operations should a buyer choose to remove it from a Plant and install it in a new location. In addition, BTEC has a 65 MW load bank and six Frame 5LA gas turbine generator packages (16.7 MW per unit) for sale.

BTEC intends to monetize the Plants by pursuing one or a combination of the following alternatives based on buyer preferences (see the corresponding numbered diagram below)

1. The sale of the capital stock of BTEC Turbines LP
2. The sale of the capital stock of Southaven Energy and New Albany Power
3. Asset level sales involving individual or multiple Units
4. Any combination of a Plant sale and individual Unit sale(s)

Exhibit 1.1



Each of the Southaven Energy and New Albany Power facilities are immediately available for purchase and future operation in their existing locations, or for removal and reinstallation of the Assets to another site.

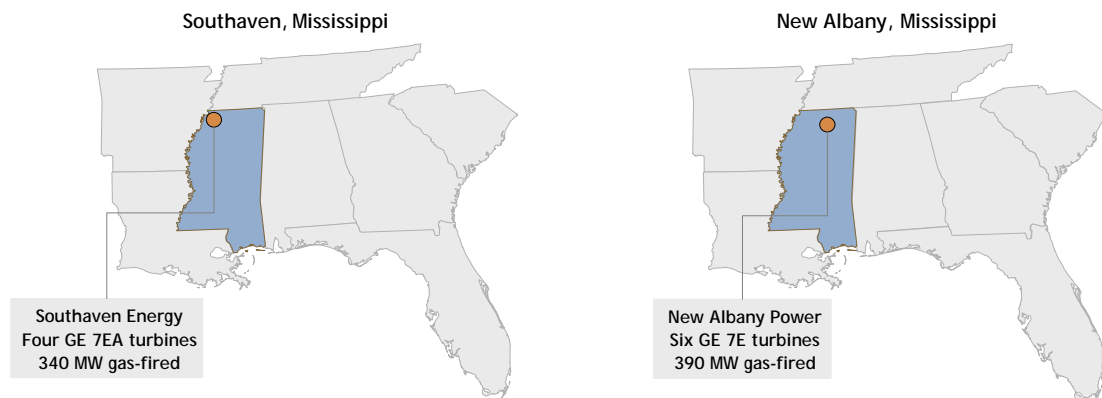
## Asset overview

The Southaven Energy facility is a 340 MW natural gas-fired, simple cycle facility located in Southaven, Mississippi. The Southaven Energy facility uses four General Electric, 84.4 MW, 7121 Frame 7EA gas turbine generators which were commissioned in 2002. The GE 7EA turbines are fully tested and operational, and a subset of them has run 25–30 hours commercially. In 2007, BTEC sold four 7EA turbines from the Southaven plant. The four 7EA turbines which are described in this memorandum represent the remainder of the turbines at the plant after the 2007 sale. The removal of the four turbines was accomplished by BTEC in a manner so as not to compromise the remaining four turbines' ability to operate as an integrated plant. Southaven Energy is strategically located within the Southeastern Electric Reliability Council ("SERC") region with transmission interconnections with Entergy Corporation ("Entergy").

The New Albany Power facility is a 390 MW natural gas-fired, simple cycle facility located in New Albany, Mississippi. The New Albany Power facility uses six remanufactured General Electric Frame 7E gas turbines rated at 65 MW. All the turbines were fully remanufactured in 1999<sup>1</sup> before installation at their current site, making the reliability, efficiency, and the emission control capability of the remanufactured turbines meet the standards of GE 7E units. New Albany Power is located within the Southeastern Electric Reliability Council ("SERC") region with transmission interconnections with the Tennessee Valley Authority ("TVA").

### Exhibit 1.2

#### Geographic overview of the assets



## Plant and equipment ownership history

Southaven Energy was built in 2001/2002 by Duke Energy for approximately \$350mm. The plant was commissioned in 2002.

New Albany Power was built by Enron in 1998/1999 for approximately \$150mm. Faced with a shortage of turbines in the US, Enron bought the used turbines from South Korea, disassembled

<sup>1</sup> Originally manufactured as 7B units, the turbines were remanufactured with new and refurbished 7E/EA hot section components, fuel system, new control system and emission system. These turbine units compare favorably in terms of performance with 7E units.

and transported them to Florida, where it remanufactured the equipment through sub-contractors. Subsequently, in 2001, Duke Energy purchased New Albany Power from Enron. The Plant has operated between approximately 1,500–2,000 hours after the comprehensive remanufacturing of the equipment. Southaven Energy and New Albany Power were bought by KGen Power (“KGen”) from Duke Energy in September 2004. BTEC bought the facilities from KGen in September 2006.

## Key investment highlights

- **Highly reliable, well-tested generation technology:** GE turbines are renowned for their long history of proven reliability, operational availability, and efficient performance. The four GE 7EA Units at Southaven and the six remanufactured GE 7E Units at New Albany have been expertly maintained by Duke Energy trained personnel. Each Unit comes fully outfitted with all necessary equipment and is ready for immediate operations
- **Asset optionality:** Southaven and New Albany can be acquired as fully operational peaking plants in an improving Southeastern US power market or some/all of the generating Units can be acquired individually for reinstallation at another project or facility in the US or globally
- **Immediately available and highly portable systems:** The Units 1) are immediately available for deployment and 2) come as completely operational, integrated systems. Current order timelines for similar generating units are up to several years, particularly in international locations. The availability of BTEC’s Units, combined with the Company’s direct experience in dismantling, packaging, and shipping complete turbine packages, provides for a more rapid delivery and commissioning process than could otherwise be achieved in today’s market
- **100% availability of balance of plant equipment:** The 7EA and remanufactured 7E Units come with a comprehensive package of integrated equipment. All associated instrumentation, mechanical and electrical equipment utilize state-of-the-art technology and were specifically designed for use with their associated Unit
- **Optional additional equipment/services available:** Regional fuel supply constraints and dynamic fuel price fundamentals make dual fuel capability a key advantage versus competing power plants that lack such flexibility. BTEC has substantial experience in turbine remanufacturing and can provide the required engineering services and equipment to convert any Unit into a dual fuel configuration as well as from 60 to 50 Hz frequency. Such value added enhancements will ensure that each Unit is optimized for its specific geography, application and fuel supply scenario in order to maximize available revenue opportunities
- **Dedicated installation service and support:** For a purchaser interested in relocating the Unit(s), BTEC can provide a range of on-site services to ensure that the equipment is installed expeditiously, including operator training and commissioning management. BTEC has extensive experience with GE turbines and has been involved in several similar successful installations of GE turbines in numerous locations and applications around the world
- **Ability to take advantage of power market arbitrage opportunities globally:** The reduction in lead time highlighted above enables buyers to capitalize on near-term power market arbitrage opportunities. Given the portability of the Assets, a new owner could rapidly build a new facility or repower an existing facility in a region with highly attractive power market fundamentals. In the US for example, California, the Northeast and Texas each generally exhibit steadily decreasing reserve margins, strong peak load growth and transmission constraints affecting major load centers. Similarly, many other US utility

service territories and developing international markets also have immediate generation capacity needs to support new projects and electrical system reliability requirements. The ability to relocate these Assets or select Units to any such market is unique and offers potential owners significant time and cost savings compared to other procurement alternatives

- **Performance of both lines of turbines compares favorably to new Frame 7 technology**
  - The GE 7EA turbines are like-new machines. The turbines have only been running for 150–300 hours since their installation in 2002. Given the lack of commercial runtime and the maintenance performed on them, these turbines are some of the best 7EA class turbines available on the market
  - The remanufactured GE 7E turbines operate at efficiency levels substantially equivalent to new equipment and require less lead time to install because they have been fully tested at the New Albany site. They also compare favorably to GE 7E and 7B turbines in terms of environmental emissions. The table below compares the relative merits of the remanufactured turbines versus GE 7E and 7B units

**Exhibit 1.3**

Comparison of GE Frame 7 gas turbines			
	Remanufactured GE 7E	GE 7E	GE 7B
Capacity	65 MW	70 MW	60 MW
Heat rate	10,820 btu/kWh	10,726 btu/kWh	11,019 btu/kWh
NO <sub>x</sub> emissions	<25 ppm	~150 ppm	~150 ppm

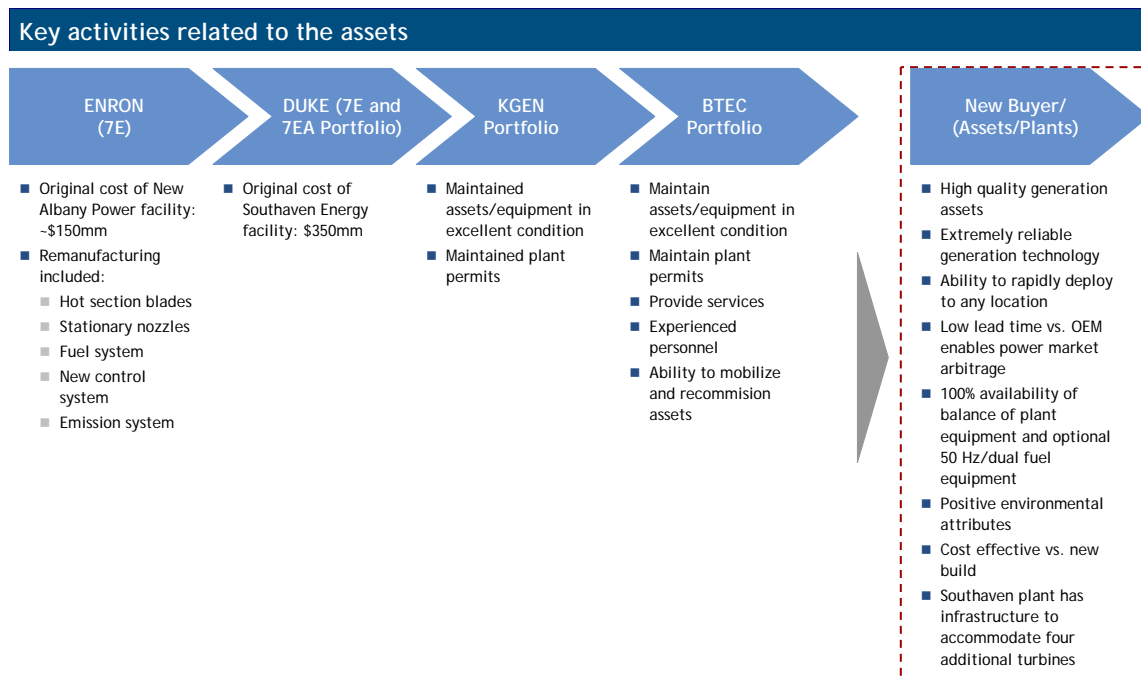
- **Strong environmental performance:** GE 7EA gas turbines are acknowledged as the industry standard for environmental performance. Furthermore, they are equipped with 92 foot Braden simple cycle exhaust stacks with silencer panels and emission monitoring ports, along with CISCO continuous emission monitoring systems (CEMS) to monitor the production of NO<sub>x</sub>, SO<sub>x</sub> and CO<sub>2</sub>. The GE 7E turbines are also designed to minimize environmental emissions and are accompanied by 45 foot simple cycle exhaust stacks with CEMS units. Due to their relatively new NO<sub>x</sub> systems, they compare favorably to GE 7E units and have lower NO<sub>x</sub> emissions
- **Advantages of gas-fired generation vs. other fossil fuels:** Power producers in many parts of the world are increasingly turning to natural gas to meet growing demand for peak power due to concerns about the effects of excessive carbon emissions on the environment. The Assets compare favorably to coal-fired generation with approximately 50% less CO<sub>2</sub>, 65% less NO<sub>x</sub>, and only 1% of the SO<sub>x</sub> emissions of an average coal-fired plant. As a result, the Assets are favorably positioned to benefit under current and future carbon regulatory regimes in the US and internationally
- **Flexibility to purchase entire Plant at both locations:** Interested buyers of the entire Plant at either or both locations can circumvent the time and cost associated with building a new power plant. The existing Plants represent considerable value-in-place relative to replacement cost for new assets, and offer significant benefits from a time-value of investment perspective given their operationally primed state. Both Plants are fully operational with all the necessary permits and gas supply lines (some additional metering and other minor gas flow equipment will be needed) and would require only 30 to 60 days to re-commission. Additionally, the New Albany site has emission credits and both Plants have the potential to convert to a combined cycle configuration. Southaven Energy and New Albany Power are located in the attractive market of northern Mississippi and have active interconnections into the high growth markets of Entergy and TVA, respectively.



These interconnections allow Southaven Energy and New Albany Power to compete in various merchant markets. The Mississippi region of SERC is forecasted to experience significant load growth and is undergoing fundamental changes with tightening reserve margins and transmission availability

The diagram below summarizes the key activities related to the assets over time.

Exhibit 1.4



## Process overview

The Owners have retained JPMorgan as their exclusive financial advisor in this process. This Memorandum is being furnished to selected parties to assist them in evaluating the potential equity, plant, and/or asset purchase opportunity from BTEC.

The Owners' principal objectives are to arrange a transaction that reflects the highest after-tax value for BTEC and/or BTEC's existing assets. The Owners intend to accomplish these objectives through a two-step process with a single diligence phase. In the first step of the process, prospective buyers will be provided with this Memorandum and asked to submit a non-binding indication of interest. Prospective buyers who are interested in getting more technical information can request a CD-ROM package and access to the electronic data room after the receipt of this Memorandum. All data will be available to the first round buyers except for the confidential technical information. Prospective buyers who want to get access to the confidential technical information are required to sign a Confidentiality Agreement. Use of the confidential technical information will be governed by the terms of the Confidentiality Agreement which strictly limits the use, circulation and copying of the information. General questions will be answered by JPMorgan on behalf of the Owners. Prospective bidders will also be invited to submit Q&A on technical information and other matters to management. Specific instructions for submission of the non-binding indication of interest will be communicated by means of a bid instruction letter.

The Phase I process is designed to ensure participating bidders are able to complete the majority of their technical diligence and commence meaningful commercial due diligence in

Phase I to underpin their non-binding indications of interest and to identify any key issues that may potentially affect their ability to submit a competitive and binding offer in Phase II.

During Phase II, a select group of prospective buyers will be invited to participate in detailed diligence in which they will be granted access to the Plants, BTEC's management, and have the opportunity to submit confirmatory due diligence questions. The diligence process is expected to conclude with the submission of final and binding proposals. Specific proposal and timing instructions will be communicated at a later stage during this process.

## 2. BTEC Turbines LP

### Overview

BTEC Turbines LP (“BTEC”) was founded in 1997 by CEO Mike Boyce in Houston, Texas. BTEC is currently owned by The Sterling Group, The Stephens Group, and Management.

BTEC is the 100% interest owner of two generation facilities in Mississippi: Southaven Energy and New Albany Power. The company is also a turbine service provider that focuses on providing specialized solutions and services to its customers.

### Asset history

An overview of the ownership history of the plants is shown below.

**Exhibit 2.1**

Ownership history			
Southaven Energy		New Albany Power	
Time	Event	Time	Event
2002	Duke purchased 8 new 7EA units from GE and constructed Southaven Energy	1998	Enron acquired six 7B units from Korean Electric. Each unit was fully remanufactured
2004	KGEN acquired Southaven Energy from Duke; Duke O&M services retained	1999	Enron constructed New Albany with the remanufactured GE units
2006	BTEC acquired Southaven Energy from KGEN; Duke O&M services retained	2001	Duke acquired New Albany from Enron
2007	BTEC sold four 7EA units; 4 units remaining	2004	KGEN acquired New Albany from Duke; Duke O&M services retained
		2006	BTEC acquired New Albany from KGEN; Duke O&M services retained

### Service capabilities

For a purchaser seeking to move the turbine assets to another site, BTEC can provide a range of services, including dismantling, packaging, and transportation. BTEC can also provide operator training and commissioning as well as 60 to 50 Hz and dual fuel conversion. BTEC has extensive OEM experience and has been involved in similar installations of GE turbines overseas, including the following:

- In late 2003, BTEC converted a Frame 6B gas turbine generator package to 50 Hz as well as dual fuel capability and tested it in Houston for shipment to Nasiriyah, Iraq. However, during transportation of the unit to Iraq, operating parameters were changed by the end-user to include crude oil as a primary fuel. BTEC converted the 6B to a tri-fuel unit by engineering, manufacturing and supplying a distillate/crude fuel treatment system. In less than 180 days BTEC had supervised the re-assembly of the supplied equipment, completed the commissioning and start-up services, and synchronized the unit to the national grid
- In late March 2004, BTEC was awarded a contract to replace two Frame 5 gas generator packages and one Frame 6B gas turbine generator package and complete all repairs necessary to put two non-operational Frame 5 turbines back onto the grid in Kirkuk, Iraq. All work, including turbine installations and 60 to 50 Hz conversions, was completed in less than six months. In addition, BTEC helped the US government repair and commission four

turbines in Iraq in 2004. BTEC's experienced team managed to put these turbines onto the grid under "extremely difficult circumstances and schedules"<sup>1</sup>. In fact, the US government has issued a formal letter of acknowledgement to BTEC for its high-quality work that is available for review in the data room

- Another of BTEC's production capabilities is the remanufacturing of 25–100 MW gas turbine generator packages, which includes custom-designed integrated fuel and control systems. BTEC also possesses industry-leading expertise for turbine, supervisory, generator, and fuel control systems
- In May 2007, BTEC successfully dismantled and packaged for shipment to the Middle East four GE 7EA turbines and associated equipment, including a comprehensive tagging and indexing program. The buyer requested that the work be completed on a fast track process. BTEC managed to accomplish all the requested tasks in 27 days

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<sup>1</sup> Cited from the acknowledgement letter sent to BTEC by Washington Group International on October 21, 2004

### 3. GE 7EA turbines and associated equipment

#### Overview



Southaven Energy is a 340 MW gas-fired, simple-cycle facility. The plant is located on approximately 114 acres in De Soto County which is just south of the Tennessee border and is essentially a suburb of Memphis. The plant is located at 2875 Stanton Road in Southaven, Mississippi. The facility consists of four 84.4 MW GE 7EA Dry Low NO<sub>x</sub> gas turbines, as well as an administration building/main control room and a warehouse building. Each pair of turbines has one 230 kV step-up transformer and two auxiliary transformers. The GE 7EA turbines were delivered directly from the OEM and installed as new units in 2002 for Duke Energy by Duke Fluor Daniel and the facility has not been dispatched commercially since its successful performance testing due to market conditions.

Since construction the plant has been maintained by Duke Energy Generation Services. The facility is currently in "not available for daily dispatch" status with the FERC and has a majority of the operational permits in place. With the positive changes in the power market in the region, this facility could be put back into service quickly as a peaker plant through its active interconnect agreement with Entergy.

Alternatively the equipment could be dismantled and relocated in a short period of time. With all of the required balance of plant equipment and engineering it could be put back into service under a significantly shorter schedule compared to a greenfield site which would require time-consuming equipment deliveries from various OEM's.

BTEC will provide the GE 7EA gas turbine generator packages which include the following major equipment in the Southaven Energy facility:



## Exhibit 3.1

## Major equipment summary

■ GE Frame 7EA gas turbine	■ Brush generator
■ Mark VI SPEEDTRONIC Turbine control system	■ Generator control system
■ Packaged electrical and electronic control center (PEECC) and Power distribution center (PDC)	■ Fogging water system
■ Continuous emissions monitoring system (CEMS)	■ Fire protection system
■ Cooling water system	■ Exhaust stack
■ Turbine inlet air filter	■ Generator step up transformer

The exhibit below provides a summary overview of the GE 7EA turbine and equipment specifications in the Southaven Energy facility.

## Exhibit 3.2

## GE Frame 7EA turbine and equipment specifications summary

Turbine	Data	Auxiliary equipment	Data
Model	PG7121EA	Fire Protection System	Chemetron CO <sub>2</sub> system
Emission Controls	Dry Low NO <sub>x</sub> (DLN) combustion system	Control Building	25 ft x 11.5 ft climate controlled building
Output/Heat Rate (ISO)	84.4 MW and 10,480 btu/kWh	Air Inlet Filter	Donaldson w/air inlet heating system and inlet fogging system
Inlet/Exhaust	Pressure drop: 3.5/5.5 inches of H <sub>2</sub> O	Exhaust Stack	92 foot stack with CEMS unit
Fuel	Natural gas	Cooling Water System	Closed loop fin-fan cooler with expansion tank and pump skid
Hours	Approximately 150 hours	Battery System	125 V DC charger and batteries
Control System	Mark VI SPEEDTRONIC triple modular redundant (TMR)		
Generator	Data	Balance of plant equipment	Data
Manufacturer	Brush	Generator Step Up Transformer	Ferranti Packard, 13.8 kV primary, 230 kV secondary, 200 MVA
Frame Size	BDAX 8-365ER (Brushless)	Auxiliary Transformers	13.8 kV to 4160 V and 13.8 kV to 480 V, two winding, delta-Wye
Excitation System	GE EX2000	Switchyard	SF <sub>6</sub> breaker, air switches and associated equipment
Terminal Voltage	13.8 kV (2-Pole, 3-Phase, Wye Conn.)	Inlet Gas Scrubber and Filter	22,000 scfm, 375 psig
Frequency/Power Factor	60 Hz/0.85 pf	Electric Fuel Gas Heater	600 psig, -20 to 200°F, 5 psid, 500 kW
Rated Output (15°C inlet air)	86.53 MW/101.8 MVA	Water Wash System	On-line and off-line skid mounted system
Cooling	Air cooled		

## Technical description

The exhibit below provides a detailed overview of the technical specifications of the gas turbine generator (GTG) equipment:

Exhibit 3.3

7EA Gas Turbine Generator (GTG) technical specifications		
GE Frame 7EA Gas Turbine		
Manufacturer		General Electric
Model		PG7121EA
Emmission controls		Dry Low NO <sub>x</sub> (DLN)
Output/heat rate (ISO)		84.4 MW and 10,480 btu/kWh
Frequency		60 Hz
Brush generator		
Manufacturer		Brush
Frame size		BDAX 8-365 ER generator
Excitation system		EX2000 brushless
Output		101.8 MVA
Frequency/power factor		60 Hz/0.85 pf
Terminal voltage		13.8 kV (2-Pole, 3-Phase)
Rated output (15°C inlet air)		86.53 MW
Cooling		Air cooled
Generator		Synchronous two-pole cylindrical rotor machine <ul style="list-style-type: none"><li>■ Louvered inlet</li><li>■ Inlet heating</li><li>■ Synthetic canister filter elements</li><li>■ Pulse cleaning system</li><li>■ Turbine inlet silencer</li><li>■ Ductwork</li><li>■ Ladders/platforms and support steel</li></ul>
Generator Air Filter		Donaldson self cleaning, single stage, pulse clean filter system
Generator control system	Components	Beckwith, BRUSH Automatic Voltage Regulator (AVR), Digital Generator Protection (DGP) and Nexus 1250 metering module
	Location	Located in the PEECC and interfaces directly with the turbine control system
	Other components	GE Multilin transformer protection relay, the EX2000 Excitation System and the lockout relays
Generator auxiliary compartment	Circuit breaker	GE 15 kV vacuum circuit breaker
	Switchgear	The 15 kV class, vacuum, metal clad switchgear installed in a NEMA 3R enclosure
	Battery system	125 VDC battery system, two chargers, Uninterruptible Power Supply is backup
Generator additional equipment	Lineside and neutral grounding equipment	Connections, surge arresters, surge capacitors, CTs, PTs and grounding transformers and resistors

### Accessory module

Skid	<ul style="list-style-type: none"> <li>■ 800 horsepower electric starting motor</li> <li>■ Auxiliary gearbox</li> <li>■ Torque converter</li> <li>■ Lube oil system               <ul style="list-style-type: none"> <li>■ Integrated tank</li> <li>■ Filter</li> <li>■ Tube and shell heat exchanger</li> <li>■ AC and DC pumps</li> </ul> </li> </ul>
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### Turbine inlet filter

Fogging system	MEE Industries <ul style="list-style-type: none"> <li>■ 6 high pressure Cat Pumps rated at 37.6 gpm, sub-micron water filter</li> </ul>
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Air processing unit	Drying and cooling compressor bleed air
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### Fuel gas module

System	<ul style="list-style-type: none"> <li>■ Gas Strainer</li> <li>■ Gas flow meter</li> <li>■ Block valves</li> <li>■ Electronic flow control valves—gas control valve (GCV), gas splitter valve (GSV), gas transfer valve (GTV)</li> <li>■ Electronic and local instrumentation</li> </ul>
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### Packaged electrical and electronic control center

Motor Controls	480 V motor control center, serves the gas turbine generator
Batteries system	125 V DC batteries with 2 chargers
Turbine control system	GE Mark VI SPEEDTRONIC triple modular redundant (TMR)

### Exhaust stack

Exhaust stack	92 foot Braden simple cycle stack including silencer panels and emissions monitoring ports
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### Exhaust frame blowers

Exhaust frame blowers	2 rear frame air blowers
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**Liquid fuel equipment (optional)**

Liquid fuel system	■ Duplex low-pressure fuel filters
	■ Liquid fuel pump
	■ Fuel oil stop valve
	■ Fuel pump discharge relief valve
	■ Fuel bypass valve assembly
	■ Flow divider
	■ Conical strainers
	■ Pressure Selector Valve
	■ Fuel line check valves
	■ Main atomizing air compressor
	■ Starting atomizing air compressor
	■ Atomizing air heat exchanger
	■ Atomizing air filter

**50 Hz equipment (optional)**

Materials	■ Gearbox for reduction from 60 Hz
	■ Gearbox auxiliary enclosures, lube oil tank, lube oil pumping and cooling systems
	■ Auxiliary motors supplied with 60 Hz power through VFDs
	■ Bearings and fans

**Balance of plant equipment****■ Fuel gas heater**

500 kW Watlow heater capable of increasing the temperature of the gas 50°F to meet the superheat requirement.

**■ Fuel gas scrubber**

National Filtration System vertical dry scrubber knock out drum that utilizes centrifugal action to achieve last stage removal of solids and entrained liquids. The capacity of the scrubber is 22,100 scfm.

**■ Cooling water module**

The cooling water system provides the cooling requirements for the lubricating oil, turbine support legs and flame detectors. The major equipment includes an expansion tank, an air cooled heat exchanger and two circulating pumps. The system utilizes a coolant consisting of a solution of 50% ethylene glycol in demineralized water.

- Bailiff Enterprises 178 gallon expansion tank is open to the atmosphere to allow for coolant expansion due to increases in ambient temperature
- Ecodyne forced draft air heat exchanger designed to supply coolant at a temperature not to exceed 125°F
- Two 75 hp Goulds Pumps, 100% capacity, rated at 967 gpm

**■ Carbon dioxide fire extinguishing system**

The carbon dioxide (CO<sub>2</sub>) fire protection system supplied by Chemtron for GT fire protection is designed to reduce to an acceptable level the risk of a fire developing within the gas turbine that could result in damage to the plant and/or possible loss of life. The system is designed to extinguish fires by reducing the oxygen content of the air in a compartment from an atmospheric normal of 21% to less than 15%, an insufficient concentration to support the combustion of turbine fuel or lubricating oil. System design, in recognizing the reflash potential of combustibles exposed to high temperature metal, provides an extended discharge

to maintain an extinguishing concentration that minimizes the likelihood of a reflash condition.

The system consists of the following major components that are located both on base and off base

- CO<sub>2</sub> tank system
- Discharge pipes and nozzles
- Pilot cylinder and solenoid valve
- Isolating valves and limit switches
- Fire (heat) detectors
- Pressure switches

CO<sub>2</sub> is supplied to a distribution system that conducts the extinguishant through pipes to discharge nozzles located in the various compartments of the gas turbine.

The solenoid valve that opens the CO<sub>2</sub> tank and initiates the discharge is located on the skid. This solenoid valve is automatically actuated by the fire panel when it receives an electrical signal from the heat-sensitive fire detectors that are strategically located in the various compartments of the unit. The system may also be actuated manually in the event of an electrical power failure by means of a lever at the top of each CO<sub>2</sub> tank. Actuation of the system, either electrically or manually, can trip the gas turbine.

Within a few seconds after actuation, sufficient CO<sub>2</sub> flows from the initial discharge system into the compartment of the machine to rapidly build up to an extinguishing concentration. This concentration is maintained for a prolonged period of time by the gradual addition of more CO<sub>2</sub>.

- Continuous Emission Monitoring System (CEMS)

A Cisco CEMS unit monitors NO<sub>x</sub>, SO<sub>x</sub> and CO<sub>2</sub>.

### *Electrical systems*

The electrical system comprises the generator and associated equipment necessary to supply power to its auxiliary electrical equipment and systems as well as to deliver power to the switchyard.

Each of the generators generates electrical power at 13.8 kV, 3-phase, 60 Hz. The output of each is connected to a generation bus via its own 15 kV class, vacuum type, metal clad circuit breaker. Also connected to the generation bus are the Generator Step-Up (GSU) transformers.

Station service power is supplied from the utility system by backfeed during plant start-up, shutdown, and maintenance periods. The station service power is supplied at 480 V, 3-phase from one of the two station service busses which are fed by the two station service transformers.

Each generator can be synchronized to the utility system by closing its respective 15 kV circuit breaker.

- Power Distribution Center (PDC)

The PDC contains various breakers and control equipment including: motor starters, motor management relay, and switchgear breakers for the MCCs located in the PEECC. Other equipment such as the heat trace panel, BOP MCC, UPS, and 125 V DC power distribution are also in the PDC.

- Auxiliary transformers



Low voltage distribution transformers manufactured by Virginia Transformer, suitable for outdoor service, rated at 13.8kV/480 V, 2341 kVA and 13.8kV/4160 V, 3000 kVA.

■ **Generator step-up transformer**

230 kV Ferranti Packard generator step-up (GSU) transformer, including appropriate protection. The GSU is rated at approximately 200 MVA. Its purpose is to step the 13.8 kV output of the generators up to 230 kV as required for interconnection to the utility transmission system.

■ **Switchyard equipment**

Includes an SF-6 breaker and air switch, CTs, PTs and appropriate relaying, protection and control equipment.

## Operation and maintenance

### Operating performance

The 7EA turbines began commercial operation in 2002. The turbines have only been running for 150–300 hours and a subset of them has run for 25–30 hours commercial operation since their installation in 2002. As Exhibit 3.4 demonstrates, they performed well in both test mode and during commercial operation. Given the lack of commercial runtime and the maintenance performed on them, these turbines are some of the best 7EA class turbines available on the market.

**Exhibit 3.4**

Tested operating performance				
Turbine	GT1	GT2	GT3	GT4
Total operating hours	210	138	274	287
Gross output (MW)	75.399	75.541	75.576	75.559
Heat rate (btu/kWh)	10,738	10,726	10,749	10,768

Note: Tested operating performance is corrected to guarantee conditions of 88.5°F and 52% relative humidity. Corrected to ISO conditions, the output of all units exceeded 84.4 MW with a heat rate lower than 10,480 btu/kWh.

### Major maintenance

Southaven Energy was purchased on September 13, 2006 by BTEC. The facility is under an O&M Agreement between AP Holdings Southaven LLC and Duke Energy Generation Services (“DEGS”) O&M LLC.

### Borescope inspection

A photo/digital borescope examination was conducted in February 2006 for all the gas turbines located at Southaven Energy. The inspection included the compressor, turbine section and combustion section. There were no major changes in these 7EA turbines noted since the last inspection. Full borescope test results on entire equipment are available in the data room and provided in the CD-ROM package.

## Environmental overview

### Previous environmental site assessments by ENSR Corporation

ENSR Corporation (“ENSR”) was requested by Duke Energy North America (“DENA”) to conduct a Phase I Environmental site assessment (“ESA”) for the proposed Southaven Energy facility in 1998. In January 2000, ENSR performed a limited Phase II investigation designed to determine

the potential presence of elevated contaminant concentrations in the sediments at the abandoned sewage lagoon on the Southaven site identified during the Phase I ESA. No elevated levels of any contaminants were detected and no further action was recommended.

#### Environmental site assessments by E.Vironment L.P.

##### *Scope of work*

In August 2006, E.Vironment, L.P. ("E.Vironment") conducted an ESA on behalf of BTEC. E.Vironment reviewed the previous Phase I and Phase II ESAs conducted by ENSR and conducted a detailed site visit of the facility. During the visits, E.Vironment interviewed appropriate DEGS personnel and performed a physical inspection of the facilities and a general inspection of adjacent properties. E.Vironment also reviewed the environmental files and records.

##### *Conclusion*

E.Vironment found the facility to be clean and well maintained. The relatively minor issues raised in the previous assessments had been adequately addressed. Preventive maintenance was performed on the equipment at the facility. No significant Environmental, Health and Safety ("EHS") issues were identified by E.Vironment. The facility had the appropriate air permits in place from the MDEQ. The permits E.Vironment referred to include a Title V Air Emissions Operations permit and an Acid Rain Permit. The time and cost associated with renewing the permits will be dependent on the number of units that are brought back online. All ESA reports are available in the data room and provided in the CD-ROM package.

The Exhibit below provides a summary overview of the permits Southaven Energy currently owns.

#### Exhibit 3.5

Southaven Energy permits	
Name	Effective period
Acid Rain Permit	03/21/05 to 12/31/09
FCC Radio Station Authorization	05/09/02 to 05/09/12
Pressure Vessel Operation	Currently being renewed
Title V Air Permit	Renewal in process
CAIR Permit	Application filed on 12/07/07

## 4. GE 7E turbines and associated equipment

### Overview



New Albany Power is a 390 MW gas-fired, simple-cycle facility. The plant is situated on approximately 66-acres in Union County in the northeastern portion of the Mississippi state. It is located at 1514 County Road 126 in New Albany, Mississippi. The facility includes six 65 MW GE 7E gas turbines, as well as an administration building/main control room, a warehouse building and a power distribution building. There is a large 500 kV switch yard behind the turbine area. Each pair of turbines has one 500 kV step-up transformer. The GE 7E turbines were fully remanufactured by Enron/NEPCO in 1998/1999. The facility was operated as a profitable peaker plant for several years before being put in standby status due to market conditions.

Just as with Southaven, the plant has been maintained by Duke Energy Generation Services since its construction. The facility is currently in “not available for daily dispatch” status with the FERC and has a majority of the operational permits in place. With the positive changes in the power market within this region, this facility could be put back into service quickly as a peaker plant through its connection to TVA.

Alternatively, the equipment could be dismantled and relocated in a short period of time. With all of the required balance of plant equipment and engineering, it could be put back into service under a significantly shorter schedule compared to a greenfield site which would require time consuming equipment deliveries from various OEMs.

BTEC will provide the GE 7E gas turbine generator packages which include the following major equipment in the New Albany facilities:

**Exhibit 4.1**

#### Major equipment summary

- |   |                                 |
|---|---------------------------------|
| ■ GE Frame 7E gas turbine                       | ■ GE Generator                  |
| ■ Turbine control system                        | ■ Generator control system      |
| ■ Continuous emissions monitoring system (CEMS) | ■ Fire protection system        |
| ■ Cooling water system                          | ■ Exhaust stack                 |
| ■ Turbine inlet air filter                      | ■ Generator Step up transformer |

The Exhibit below provides a summary overview of the GE 7E turbine and equipment specifications in the New Albany facility.

**Exhibit 4.2**

#### GE Frame 7E turbine and equipment specifications summary

Turbine	Data	Auxiliary equipment	Data
Model	MS7000B uprated to E status	Fire Protection System	Chemetron CO <sub>2</sub> system
Emission Controls	Dry Low NO <sub>x</sub> (DLN) combustion system	Control Building	Climate controlled building
Output/Heat Rate (ISO)	65 MW and 10,999 btu/kWh	Air Inlet Filter	Inertial separator with replaceable media filters
Inlet/Exhaust	Pressure drop: 4.0/5.0 inches of H <sub>2</sub> O	Exhaust Stack	45 foot stack with CEMS unit
Fuel	Natural gas	Cooling Water System	Closed loop system
Control System	Turbo-Tronics	Battery System	125 V DC charger and batteries
Generator	Data	Balance of plant equipment	Data
Manufacturer	GE	Generator Step Up Transformers	ABB 13.8 kV primary, 500 kV secondary, 208 MVA
Type	D235T4	Auxiliary Transformers	13.8 kV to 4160 V and 13.8 kV to 480 V
Excitation System	Basler-regulator 357501FS141	Switchyard	SF6 breaker, air switches and associated equipment
Terminal Voltage	13.8 kV (2 pole, 3-phase, Wye Conn.)	Water Wash System	On-line and off-line skid mounted system
Frequency/Power Factor	60 Hz/0.9 pf	Demineralized Water Storage Tank	2,750 gallon
Rated Output (15°C inlet air)	71.20 MW/79.11 MVA (Peak)	Fire/Raw Water Storage Tank	120,000 gallon
Cooling	Air-cooled	Fuel Gas Heater	Internally fired NATCO system

## Technical description

The exhibit below provides a detailed overview of the technical specifications of the gas turbine generator (GTG) equipment.

Exhibit 4.3

7E Gas Turbine Generator (GTG) technical specifications	
<b>GE Frame 7E Gas Turbine</b>	
Manufacturer	General Electric
Emission controls	Dry Low NO <sub>x</sub> (DLN)
Output/heat rate (ISO)	65 MW and 10,999 btu/kWh
<b>GE Generator</b>	
Manufacturer	General Electric
Excitation system	Brush type
Output (peak)	79.1 MVA
Frequency/power factor	60 Hz/0.9 pf
Terminal voltage	13.8 kV (2-Pole, 3-Phase)
Rated output (15°C inlet air)	71.20 MW
Cooling	Air cooled
<b>Accessory module</b>	
Skid	<ul style="list-style-type: none"> <li>■ 800 horsepower electric starting motor</li> <li>■ Auxiliary gearbox</li> <li>■ Torque converter</li> <li>■ Lube oil system               <ul style="list-style-type: none"> <li>■ Integrated tank</li> <li>■ Filter</li> <li>■ Tube and shell heat exchanger</li> <li>■ AC and DC pumps</li> </ul> </li> </ul>
<b>Turbine inlet filter</b>	
Fogging system	PowerFog system
<b>Fuel gas module</b>	
System	<ul style="list-style-type: none"> <li>■ Gas Strainer</li> <li>■ Gas flow meter</li> <li>■ Block valves</li> <li>■ Electronic flow control valves - gas control valve (GCV), gas splitter valve (GSV), gas transfer valve (GTV)</li> <li>■ Electronic and local instrumentation</li> </ul>
<b>Packaged electrical and electronic control center</b>	
Motor controls	480 V motor control center, serves the gas turbine generator
Batteries system	125 V DC batteries with 2 chargers
Turbine control system	Turbo-Tronics Allen-Bradley PLC based
<b>Exhaust stack</b>	
Exhaust stack	Simple cycle stack including emissions monitoring ports
<b>Generator control system</b>	
Specifications	Generator protection and Automatic Voltage Regulator (AVR) functions; interfaces with the Turbine Control System
<b>Cooling water system</b>	
Integral to accessory module	



### Liquid fuel equipment (optional)

Liquid fuel system components	<ul style="list-style-type: none"> <li>■ Duplex low-pressure fuel filters</li> <li>■ Liquid fuel pump</li> <li>■ Fuel oil stop valve</li> <li>■ Fuel pump discharge relief valve</li> <li>■ Fuel bypass valve assembly</li> <li>■ Flow divider</li> <li>■ Conical strainers</li> </ul>
Combustion system	<ul style="list-style-type: none"> <li>■ Diffusion flame liquid fuel only water injected nozzle assemblies</li> <li>■ Nimonic Transition Pieces (TP's)</li> <li>■ Reuter Stokes SiC flame detectors</li> <li>■ Off base water injection for NO<sub>x</sub> control with               <ul style="list-style-type: none"> <li>■ Water injection pumps with variable frequency drives</li> <li>■ Space heater</li> <li>■ 10 micron filters</li> <li>■ 316 SS water injection piping</li> <li>■ Base and weather enclosure</li> <li>■ Instrument and control devices</li> </ul> </li> </ul>
Atomizing air system	<ul style="list-style-type: none"> <li>■ Main atomizing air compressor</li> <li>■ Starting atomizing air compressor</li> <li>■ Atomizing air heat exchanger</li> <li>■ Atomizing air filter</li> </ul>

### 50 Hz equipment (optional)

Components	<ul style="list-style-type: none"> <li>■ Gearbox for reduction from 60 Hz</li> <li>■ Gearbox auxiliary enclosures, lube oil tank, lube oil pumping and cooling systems</li> <li>■ Auxiliary motors supplied with 60 Hz power through VFDs</li> <li>■ Bearings and fans</li> </ul>
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### Balance of plant equipment

#### *Mechanical systems*

- Fuel gas heater

NATCO indirect fired natural gas heater maintaining a minimum of 50°F superheat.

- Fuel gas scrubber

PECO vertical filter with high efficiency particulate filter elements and stainless steel vanes for scrubbing.

- Carbon dioxide fire extinguishing system

The carbon dioxide (CO<sub>2</sub>) fire protection system supplied by Chemtron for GT fire protection is designed to reduce to an acceptable level the risk of a fire developing within the gas turbine that could result in damage to the plant and/or possible loss of life. The system is designed to extinguish fires by reducing the oxygen content of the air in a compartment from an atmospheric normal of 21% to less than 15%, an insufficient concentration to support the combustion of turbine fuel or lubricating oil. System design, in recognizing the reflash potential of combustibles exposed to high temperature metal, provides an extended discharge to maintain an extinguishing concentration that minimizes the likelihood of a reflash condition

The system consists of the following major components that are located both on base and off base

- CO<sub>2</sub> tank system
- Discharge pipes and nozzles
- Pilot cylinder and solenoid valve
- Isolating valves and limit switches
- Fire (heat) detectors
- Pressure switches

CO<sub>2</sub> is supplied to a distribution system that conducts the extinguishant through pipes to discharge nozzles located in the various compartments of the gas turbine.

The solenoid valve that opens the CO<sub>2</sub> tank and initiates the discharge is located on the skid. This solenoid valve is automatically actuated by the fire panel when it receives an electrical signal from the heat-sensitive fire detectors that are strategically located in the various compartments of the unit. The system may also be actuated manually in the event of an electrical power failure by means of a lever at the top of each CO<sub>2</sub> tank. Actuation of the system, either electrically or manually, can trip the gas turbine.

Within a few seconds after actuation, sufficient CO<sub>2</sub> flows from the initial discharge system into the compartment of the machine to rapidly build up to an extinguishing concentration. This concentration is maintained for a prolonged period of time by the gradual addition of more CO<sub>2</sub>.

- Continuous Emission Monitoring System (CEMS)

CEMS unit monitors NO<sub>x</sub>, SO<sub>x</sub> and CO<sub>2</sub>.

#### *Electrical systems*

The electrical system comprises the generator and associated equipment necessary to supply power to its auxiliary electrical equipment and systems as well as deliver power to the switchyard.

Each of the generators produces electrical power at 13.8 kV, 3-phase, 60 Hz. The output of each is connected to a generation bus via its own 15 kV class, vacuum, metalclad, circuit breaker. Also connected to the generation bus are the Generator Step-Up (GSU) transformers.

Station service power is supplied from the utility system by backfeed during plant start-up, shutdown, and maintenance periods. The station service power can be supplied at 480 V, 3-phase.

Each generator can be synchronized to the utility system by closing its respective 15 kV circuit breaker.

- Auxiliary transformers

Low voltage distribution transformers, rated at 13.8 kV/480 V and 13.8 kV/4160 V .

- Generator step-up transformer

500 kV ABB generator step-up (GSU) transformer, including appropriate protection. The GSU is rated at approximately 208 MVA. Its purpose is to step the 13.8 kV output of the generators to 500 kV as required for interconnection to the utility transmission system.

## ■ Switchyard

Includes an SF-6 breaker and air switch, CTs, PTs and appropriate relaying, protection and control equipment.

## Operation and maintenance

The 7E turbines began commercial operation in the 1970s. However, the turbines ran for only approximately 2,000 hours since remanufacturing.

### Exhibit 4.4

Tested operating performance						
Turbine	GT1	GT2	GT3	GT4	GT5	GT6
Net output (MW)	61.203	59.675	60.744	62.090	60.377	60.984
Heat rate (btu/kWh)	11,079	11,292	11,143	10,870	11,079	11,076

Note: GT1 and GT2 were tested at 2010°F firing temperature and GT3-6 were tested at 1965°F firing temperature. Net output values are all based on 2010°F firing temperature. Heat rate is at actual test conditions. Corrected to ISO conditions, the output of all units is approximately 65 MW with an average heat rate of approximately 10,820 btu/kWh.

## Remanufacturing overview

All GE 7E gas turbines were remanufactured through subcontractors when Enron installed them in New Albany. The remanufactured turbines are operating at similar efficiency levels compared to GE 7E equipment.

### Exhibit 4.5

7E remanufacturing summary				
Section	Component	Replaced	Comments	Advantages
Turbine	Hot section rotating and stationary blades	✓	Upgrade from 7B to 7E/EA as required	Improved efficiency/heat rate; increased capacity—60 MW (7B) to 65 MW (7E); reduced fuel requirement; reduced wear and tear
Turbine	Entire fuel system	✓	New fuel system	Lower emissions and improved heat rate
Control system	Control system	✓	New control system installed	Facilitated streamlined/automated control of system operations; minimized human error; maximized safety
Balance of plant	Balance of plant	✓	New balance of plant	Improved reliability

## Major maintenance

New Albany Power was purchased on September 13, 2006 by BTEC. The facility is under an O&M Agreement between BTEC New Albany LLC and DEGS O&M LLC.

## Borescope inspection

A photo/digital borescope examination was conducted in March 2006 for all the gas turbines located at New Albany Power. The inspection included the compressor, turbine section, combustion section and the exhaust. Fuel nozzles 2, 3, 4, 7, 8, and 9 were removed for this inspection. No abnormal conditions were found and trending data was gathered for future inspections. Full borescope test results for all of the equipment are available in the data room and provided in the CD-ROM package.

## Environmental overview

### Studies conducted by prior owners

Several ESAs have been conducted by the prior owners since 1998. Neel-Schaffer, Inc. ("Neel-Schaffer") conducted a Phase I ESA for Enron in 1998. No evidence of underground storage tanks on site, landfills and past industrial development on the property was found.

After Duke Energy bought the facility from Enron in 2001, DENA requested ENSR to conduct a Phase I/II ESA to evaluate business environmental risk associated with the facility. ENSR conducted another Phase I ESA for DENA to identify recognized environmental conditions ("RECs") in 2004. In general, these ESA reports revealed that the New Albany facility is in compliance with applicable environmental requirements.

### Environmental site assessment by E.Vironment L.P.

#### *Scope of work*

In August 2006, E.Vironment, L.P. ("E.Vironment") conducted an ESA on behalf of BTEC. E.Vironment reviewed the previous ESAs and conducted a detailed site visit of the facilities. During the visits, E.Vironment interviewed appropriate DEGS personnel and performed a physical inspection of the facilities and a general inspection of adjacent properties. E.Vironment also reviewed the environmental files and records.

#### *Conclusion*

E.Vironment found the facility to be clean and well maintained. The relatively minor issues raised in the previous assessments have been adequately addressed. Preventive maintenance was performed on the equipment at the facility. No significant EHS issues were identified by E.Vironment. The facility had the appropriate air permits in place from the MDEQ. The permits included a Title V Air Emissions Operations permit and a Phase II Acid Rain Permit.

All ESA reports are available in the data room and provided in the CD-ROM package.

The Exhibit below provides an overview of the permits New Albany Power currently owns.

#### Exhibit 4.6

New Albany Power permits	
Name	Effective period
Acid Rain Permit	01/01/04 to 12/31/08
Pressure Vessel Operation	Currently being renewed
Title V Air Permit	06/13/04 to 05/31/09
CAIR Permit	Application filed on 12/07/07

## 5. Turbine mobilization process and optional conversions

### Turbine mobilization process



The picture above depicts the mobilization of the other 7EA units from the Southaven Energy site in 2007.

Exhibit 5.1 below provides an illustrative timeline for the removal of all of the turbines and balance of equipment for 7E units. The turbine mobilization process for 7E units would be very similar. Following this schedule, BTEC would need approximately 60 days to prepare all equipment for shipment. If needed, BTEC has the capability and experience to mobilize this equipment in a much shorter timeframe. Previously, BTEC successfully removed four GE 7EA turbines from the Southaven Plant and packed them in as little as 27 days. This responsiveness provides the flexibility to a buyer for a more aggressive time table.

#### Exhibit 5.1

##### Illustrative 7EA removal time table

###### Day 1–8

- Tag all equipment prior to removal
- Drain all liquid from accessory/turbine modules and cooling water module
- Remove all filters from turbine air inlet filter house and generator filter house
- Identify all break points and match mark equipment
- Remove piping insulation

###### Day 9–16

- Disassemble cooling water module piping and water pump skid
- Remove APU skid insulation
- Dismantle fuel heater and scrubber skid
- Remove fogging skid
- Remove bleed-air piping

**Day 17–24**

- Remove auxiliary transformers
- Disassemble exhaust frame blowers
- Remove platforms from PEECC and PDC buildings
- Remove inlet filter house JIB crane
- Remove CO<sub>2</sub> tank
- Disassemble cooling water module
- Remove HVAC units from PDC and PEECC buildings
- Remove heat exchanger piping from top of silencer
- Remove fuel gas scrubber piping

**Day 25–32**

- Remove filter house
- Remove lower vertical ladders
- Remove inlet 90°
- Construct scaffold inside of exhaust stack
- Remove generator end shields
- Unbolt turbine to generator skid interconnect lines
- Remove turbine roof piping
- Remove fuel gas module
- Remove PEECC building

**Day 33–40**

- Remove vent hoods from generator, accessory and turbine modules
- Remove roof, walls, and platform on centerline equipment
- Remove piping and catwalk from accessory skid
- Remove PDC building
- Remove upper portion of exhaust stack
- Remove exhaust stack transition piece
- Remove silencer panels
- Remove exhaust heat shields

**Day 41–60**

- Disassemble (split) exhaust base silencer
- Shrink wrap interior of accessory module
- Shrink wrap turbine module
- Shrink wrap generator
- Pack and crate all equipment in preparation for shipment

## Optional conversions

### Frequency conversion

The generator package can be converted from 60 Hz to 50 Hz using an optional 50 Hz equipment package. With the purchase of this 50 Hz equipment which BTEC can provide, buyers can connect the generator packages to virtually any electrical grid in the world. BTEC is experienced in 60 to 50 Hz conversions. Examples of BTEC 50 Hz conversions include the company's conversion of two replacement Frame 5B gas turbine generators and one Frame 6B gas turbine generator to 50 Hz in Kirkuk, Iraq, and the conversion of a Frame 6B gas turbine to 50 Hz in Nasiriyah, Iraq.



### Fuel conversion

The turbine generator package also comes with the ability to add optional dual fuel equipment, which BTEC can provide. The dual fuel equipment enables the units to run on liquid fuel and thereby allows owners to take advantage of differences in the relative prices of competing fuels. In times of regional fuel supply constraints or changing fuel price fundamentals, this gas/oil optionality will prove to be a key advantage versus competing power plants that lack such flexibility. One example of a BTEC fuel conversion is the Nasiriyah project mentioned above, where the Frame 6B gas turbine was converted to a tri-fuel unit.

## 6. Other assets

### 5LA Gas Turbines

BTEC has six 16.7 MW GE Frame 5LA Gas Turbine Generator Packages. These turbines are single shaft heavy duty industrial gas turbines and are suitable for outdoor operation. They are configured for natural gas fuel and have anti-corrosion coatings on liners, nozzles, and blades.

Exhibit 6.1

#### GE Frame 5LA turbine generator package specifications summary

Component	Description
Frequency	60 Hz
Generator	GE, 3600 rpm, 13.2 KV, 3ph, 60 Hz, 18,824 @ .85 PF, air cooled, EDF-4 excitation system (250v, 240a), RTDs for generator stator winding (2 per phase)
Accessory Gearbox	Drives main lube oil pump and hydraulic pump
Turbine/Generator Modules	Acoustical enclosure and single lift bases
Turbine Lube Oil System	On-main-skid self-contained lubrication system includes: dual filters, dual oil/water heat-exchangers, gearbox driven main pump, backup AC driven pump, emergency DC driven pump, air/oil mist eliminator associated instrumentation
Hydraulic System	Gearbox driven pump, backup AC driven pump and dual filters
Cooling Water System	Includes turbine-generator lube oil heat exchangers and support legs
Cooling and Sealing Air System	Complete system, includes control valves
Starting System	Diesel starter (2); Electric motor starter (4)
Generator Connections	Neutral cubicle including a grounding resistor; Generator lineside connection is fed direct to 15 kV switchgear line-up

Exhibit 6.2

#### Available optional equipment

Component	Description
Load Test	Full load package test utilizing dedicated packaged equipment for this unit (i.e., MCC, turbine control panel)
Dual Fuel (#2 Fuel Oil)	Liners, liquid fuel nozzles, fuel pump, fuel ring, piping and connections
Fire System	CO <sub>2</sub> fire protection system for turbine and generator compartments; System includes nozzles, heat detectors, CO <sub>2</sub> bottles and racks and independent fire system control panel
Vibration Monitoring System	Velocity and proximity probes together with monitoring and alarm panel

Ventilation System	Cooling ventilation air for compartments complete with fans, dampers, and exhaust hoods
Air Filter/Silencer	Air inlet filter system consisting of a silencer, transition duct, and expansion joint
Turbine Control Panel	Control system using BTEC proprietary architecture includes turbine-generator sequencing and control
Power Control Module	<p>10' 8" x 15' control module attached to the accessory skid with a weatherproof enclosure containing:</p> <ul style="list-style-type: none"> <li>■ GTG 480 VAC MCC/Lighting and Distribution transformer</li> <li>■ 120 volt distribution panel</li> <li>■ BTEC Turbine Control System</li> <li>■ Complete battery set</li> <li>■ Batteries and chargers—(1) 125 V DC control system, one hr supply, dual chargers, and disconnects; (2) 24 V DC fire system battery system</li> <li>■ Miscellaneous: cable trays, lighting, interior and interconnect cabling</li> </ul>
Gas Fuel System	Includes duplex shutoff valves/vent valve, fuel flow metering (corrected), associated instrumentation, and a control valve all mounted on an independent skid located adjacent to the gas turbine module. System includes latest technology that surpasses original OEM supplied equipment (i.e. electronic fuel control valve)

## 7. Transaction overview

### Transaction structure

The Owners anticipate that any sale will be structured as an all-cash sale of their ownership interests in BTEC, one or both of the entities that hold the Plants and/or one or more of the Assets.

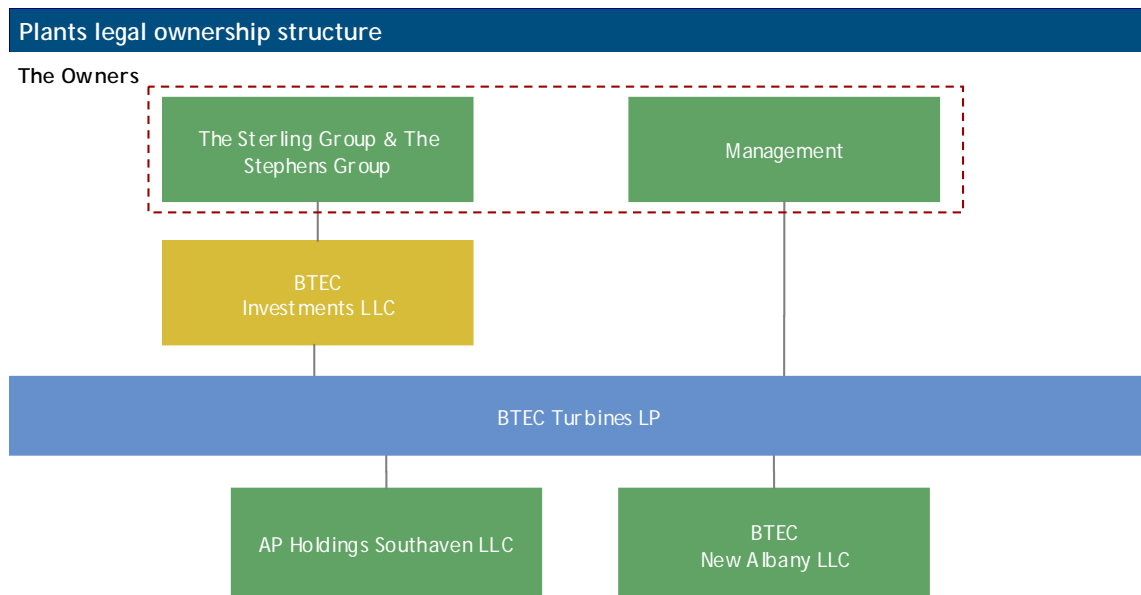
Potential sale alternatives may be subject to Federal Energy Regulatory Commission (“FERC”) approval and clearance under the Hart-Scott-Rodino Antitrust Improvements Act (“HSR”). Certain notices will also have to be filed with the state regulatory for a change of ownership. No substantive state regulatory review will be required though for a plant that has current permits. The exhibit below shows FERC approval requirements of potential alternatives.

**Exhibit 7.1**

Regulatory approval requirements	
Alternatives	FERC
Sale of the capital stock of BTEC Turbines LP	Required
Sale of the capital stock of Southaven Energy and New Albany Power	Required
Asset level sales involving individual or multiple Units	Not required
Any combination of a Plant sale and individual Unit sale(s)	Required

The exhibit below provides a summary overview of BTEC’s legal structure.

**Exhibit 7.2**



### Transaction process

JPMorgan will be conducting a two-step sale process on behalf of the Owners to solicit interest in this transaction.

Ultimately, the Owners reserve the right to discontinue the sale process or to remove any Asset(s) and/or Plant(s) from the sale process at any time in its sole and absolute discretion and to reject any bid received at its sole and absolute discretion. The Owners will not be obligated to disclose any reasons for doing so and may choose to do so at any time during the

transaction process. The Owners may negotiate with various parties for the sale of certain Asset(s) and/or Plant(s) outside of this sale process.

#### *Phase/overview*

The Owners' principal objective is to maximize the after-tax cash proceeds to its shareholders. The Owners intend to accomplish these objectives through a two-step process with a single diligence phase. In the first step of the process ("Phase I"), prospective buyers will be provided with this Memorandum and asked to submit a non-binding indication of interest. Prospective buyers who are interested in getting more technical information can request a CD-ROM package and access to the electronic data room after the receipt of this Memorandum. All data will be available to the first round buyers except for the confidential technical information. Prospective buyers who want to get access to the confidential technical information are required to sign a Confidentiality Agreement. Use of the confidential technical information will be governed by the terms of the Confidentiality Agreement which strictly limits the use, circulation and copying of the information. General questions will be answered by JPMorgan on behalf of the Owners. Prospective bidders will also be invited to submit limited Q&A on technical and other matters to management. Specific instructions for submission of the non-binding indication of interest will be communicated by means of a bid instruction letter. Following a review of the indicative bids, select bidders will be invited to participate in a more detailed review of the Plant(s) and/or Unit(s) ("Phase II").

The Phase I process is designed to ensure participating bidders are able to complete the majority of their technical diligence and commence meaningful commercial due diligence in Phase I to underpin their non-binding indications of interest and to identify any key issues that may potentially affect their ability to submit a competitive and binding offer in Phase II.

During Phase II, a select group of prospective buyers will subsequently be invited to participate in detailed diligence in which they will be granted access to the Plants, BTEC's management, and have the opportunity to submit confirmatory due diligence questions. The diligence process is expected to conclude with the submission of final and binding proposals. Specific proposal and timing instructions will be communicated at a later stage during this process.

#### **Energy investment banking coverage**

Sean O'Donnell  
*Head of Generation Coverage*  
sean.odonnell@jpmorgan.com  
(212) 622-6824

Sid Sinha (primary contact)  
*Vice President*  
siddhartha.x.sinha@jpmorgan.com  
(212) 622-6210

Susan Zhang (primary contact)  
*Associate*  
susan.r.zhang@jpmorgan.com  
(212) 622-6786

Charles Breeden  
*Associate*  
charles.a.breeden@jpmorgan.com  
(212) 622-3432

Ilya Minevich  
*Analyst*  
ilya.g.minevich@jpmchase.com  
(212) 622-7056

Actual signed letters (one hardcopy) can be mailed to the above individuals for delivery on the next business day.

As a reminder, all questions regarding this sale should be directed to JPMorgan and its representatives only.

## 8. Appendix I - photos of GE Frame 7 gas turbines

Frame 7EA gas turbines



Frame 7EA gas turbines



Inlet air filter (self cleaning)



Exhaust system



DLN system



Central control room



Auxiliary equipment control room



Cooling system



Inlet air processing unit



Switchyard



Generator step up transformer  
(230 kV)



Water storage tanks



Fuel gas treatment system



Frame 7E gas turbines



Frame 7E gas turbines



Inlet air filter



Exhaust system



Water treatment system



Inlet fogging system

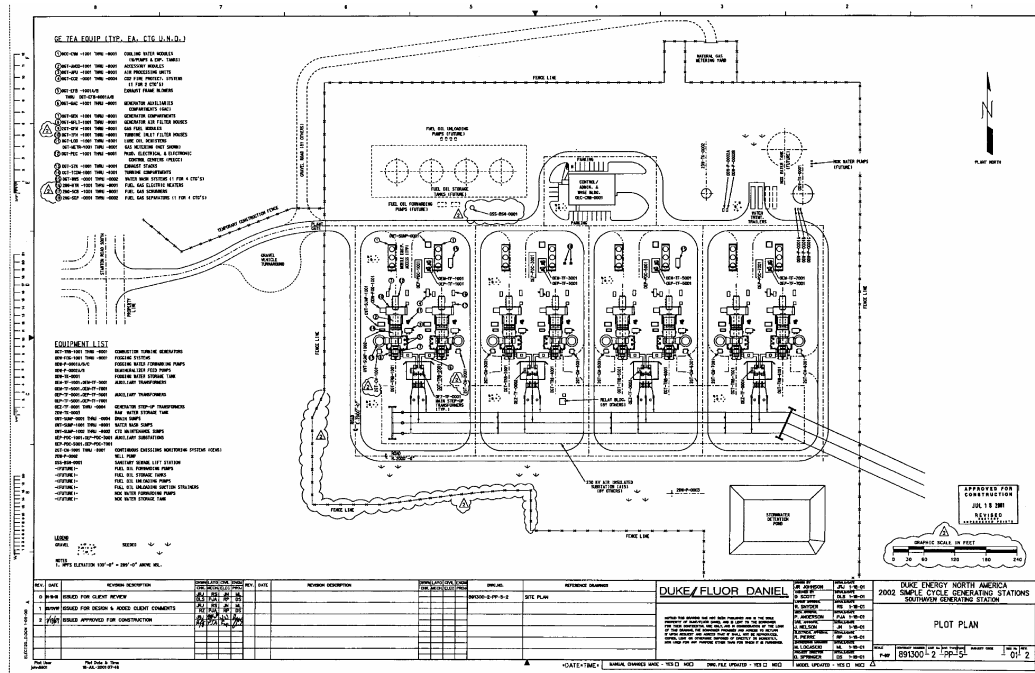


Generator step up transformers  
(500 kV)



Switchyard

# Southaven Energy



## New Albany Power

