



### **Company Profile**

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# National Tri-generation Company

National Tri-generation Company (NTCC) is a fully-fledged energy and cooling solutions company based in Riyadh, Kingdom of Saudi Arabia. NTCC is a joint stock company with a paid up capital of SAR 150,000,000.

NTCC is the first company to be authorized by the Electricity and Cogeneration Regulatory Authority (ECRA) in Saudi Arabia to provide field studies, perform the installation and operation of Tri-generation plants throughout the Kingdom.

National Energy Supply Company (NESC) is one of the leading suppliers of customized utility solutions in the energy sector based in Riyadh, Kingdom of Saudi Arabia, with a paid up capital of SAR 103,500,000. NESC finances, develops, builds, operates and maintains advanced technology plants that serve the long-term heating, cooling, and power requirements for commercial, industrial, and governmental clients.

NTCC has alliances with international companies specialized in providing total energy solutions which give the company the technological aptitudes and capabilities to develop and invest in cooling & power plant projects. supported by our three subsidiary companies:



 Image: Statute of Statute o



# National Energy Supply Co. BOOT

National Energy Supply Company Since 2007 operates in partnership with its clients to finance, develop, build, operate, and maintain advanced power technology solutions that meet the long-term heating, cooling, and power requirements of commercial, industrial, and government clients under the BOOT concept.

Supported by significant financial resources and an extensive network of influential relationships, National Energy Supply Company takes full responsibility for ensuring efficient, sustainable, and reliable district energy and cooling services for its clients, which are customized to their requirements from a single outsourced provider.

The management team of National Energy Supply Company brings collective and broad expertise in the fields of engineering, environmental issues, and energy. Our professionals offer a proven track record of advisory capabilities in business strategy and long-term energy development, strongly backed by our capabilities in planning, designing, constructing, operating, and managing a wide variety of electric generators, tri- generation, and district energy facilities.

National Energy Supply Company maintains a network of resilient alliances with financial institutions and international partners that specialize in total energy solutions, ensuring consistent access to the capability and liquidity for





At National Energy Supply Company, our core business is to provide innovative cooling and energy solutions that help organizations reduce operational costs, maintain asset lifespan, and promote renewable energy and energy efficiency. We offer a range of key solutions that may interest you these include, but are not limited to:

- Innovative cooling and energy solutions
- District energy O&M consultations
- Operations and maintenance services for district cooling and HVAC systems
- Energy optimization for cooling systems
- Design review and enhancement of original setups
- Cooling plant automation

We specialize in delivering cutting-edge technologies that are tailored to our clients' unique needs and requirements. Our team of experts offers sound advice and support throughout the project lifecycle. Our focus is on providing cost-effective and sustainable solutions that drive positive results.







### VISION

Our vision is to lead the industry in providing efficient cooling, heating, power, and water solutions in KSA. We achieve this by offering a unique, comprehensive "turnkey" solution to our clients, delivered in a timely manner with state-of-the-art bundled technology that exceeds their expectations.

Our commitment to innovation and entrepreneurship ensures that we remain at the forefront of the industry.

We strive to preserve the ingenuity and creativity of the private sector while delivering cuttingedge solutions that drive positive results for our clients





### MISSION

Our mission is to provide reliable and efficient power, cooling, and water outsourcing solutions to our clients at the lowest possible cost, while maintaining the highest level of performance. We are committed to delivering solutions that meet and exceed our clients' expectations, while also promoting sustainability and environmental responsibility that aligns with the country's vision.

We are dedicated to playing our part in building a sustainable future for Saudi Arabia by delivering innovative solutions that are both cost- effective and environmentally friendly.



# What We Value

**National Energy Supply Company** 

At National Energy Supply Company, our common values guide our actions and describe how we behave in today's world.

### These values are:

**Leadership**: We have the courage to shape a better future in line with KSA 2030 Vision, which aims to lead the energy market and promote sustainable development.

**Collaboration Ventures & Partners:** We believe in the power of collaboration and partnerships to leverage collective masterminds and achieve shared goals and success

**Integrity:** We act with honesty, transparency, and accountability in all our dealings.

**Accountability:** We take full responsibility for our actions and strive to deliver on our commitments.

Passion: We are fully committed and dedicated to our work and



strive to achieve excellence in all areas of our business.

**Diversity:** We promote diversity and inclusivity in our solutions and operations to better serve our clients and stakeholders.

**Quality:** We excel at what we do and strive to deliver high-quality solutions that meet and exceed our clients' expectations

# **Our Services**

National Energy Supply Company customized O&M solutions for end users and business owners (which is in return a complimentary services to our BOT, BOOT, BOO and DBO business) ranging from full performance-based total O&M to reduced scope services such as maintenance, engineering, process control systems (SIEMENS Partners) and the mobilization of new project operations, including the provision of technical specialists, tools, and processes for the facility.

There is also the contracts-based model, with contracts associated with various levels of service such as PPM, troubleshooting and specialized maintenance contracts. The most comprehensive service levels involve the provision of integrated O&M services, which means carrying out a customized approach for the prospective clients. O&M contracts cover all aspects and activities necessary to run cooling plants in a safe and economical manner.











The cooling services business environment has been evolving over recent years, and business owners have had to look at alternative ways of managing their business efficiently from an economic point of view.

Operations and maintenance (O&M) forms a core business area for cooling services and has started getting a lot of attention due to its strategic impact on energy costs.

In the long-term the end users and business owners are now focusing on O&M strategies to stay cost-competitive, improve their operational excellence and extending the life expectancy of assets.





NATIONAL ENERGY SUPPLY COMPANY

### **Chilled Water Plants O&M Services**

Choosing the right O&M strategy is a major key of success. National Energy Supply Company is striving for economic excellence by implementing a very precise O&M methodologies. The most important factors for an efficient and successful O&M strategy are the effectiveness of manpower and assets life-span optimization.







### **OPERATIONS**

- Optimization of manpower and available resources
- Building a new reliable Standard Operating Procedures (SOP) and improving existing SOPs if required
- Continuous tracking of existing sequence of operation and if required alter it to achieve best Best Operating Point BOP if neccessary
- Strive for optimization of Power Kw/Ton , water consumption m3/ Ton either with an existing plant set up or through additional systems at a lower cost to customer with minimum payback period
- Benchmarking efficiency level of major equipments' of the plant on annual basis



### MAINTENANCE

The Total Productive Maintenance scheme is targeted to be achiev by focusing on the following:

- Focused Improvement
- Autonomous Maintenance
- Planned Maintenance
- Training and technical education
- Early management
- Quality Maintenance
- Office total productive maintenance
- Safety, health and environment











NATIONAL ENERGY SUPPLY COMPANY

# **O&M Consultancy Services**

At National Energy Supply Company, we provide O&M consultancy services for cooling plants and HVAC systems. With over 15 years of solid, diversified technical experience in the design, operation, and maintenance of cooling plants and HVAC systems, we offer a range of consultancy services for asset optimization, O&M services, investigations, project management, and energy efficiency.

To reach to the optimum performance of the cooling systems we conduct all the below tasks and analysis techniques but not limited to:

- 1- Design review
- 2- Study of standard operating procedures SOP's
- 3- Study of control scheme
- 4- Hydronic analysis
- 5- Heat load and psychometric analysis
- 6- Manpower optimization
- 7- Performance analysis of major systems (chillers, cooling towers, pumps, TES's, air handlers... etc.)
- 8- Study of maintenance program.
- 9- Energy calculations
- 10- Vibration and thermographic analysis.









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# **Cooling Plants Automation and Energy Optimization**

The main objective of our control system is to be adaptive in nature and to implement the best sequence of operations depending on the existing plant conditions. We work to obtain the operation optimization point between different major plant equipment, such as chillers, cooling towers, and pumps, which is key for energy savings. Achievable energy savings in cooling plants can range from 15 to 40 percent, depending on the existing condition of the plant.

We offer cutting-edge technology and expertise to deliver reliable and efficient cooling and energy solutions.

National Energy Supply Company is an authorized channel partner of Siemens Automation for the development of control schemes, PLC algorithm programming, and the building of required hardware and SCADA systems for cooling plants. Our goal is to achieve optimization in manpower and energy efficiency.





NATIONAL ENERGY SUPPLY COMPANY

# **HVAC Systems**

National Energy Supply Company provides intelligent power and thermal solutions for all types of air conditioning, ventilation, and air solutions. Our solutions include:

- Supply
- Installation work.
- Chilled Water Systems.
- Consultancy Services.
- Operation & Maintenance

### Supply:

We supply all types of air solutions, including the necessary equipment, units, fans, and full support to help our clients choose the right solutions for their projects.

### Installation work:

At National Energy Supply Company, we not only supply the materials but also provide installation services for all types of AC and refrigeration units, pipes, and ducts, using high-quality materials and expert technicians.

### **Chilled Water System:**

We have a successful history in the field of chilled water systems, including district cooling as BOOT and O&M, with all types of chillers, including air-cooled, water-cooled, and absorption types, for supply and installation.

### **Consultancy services:**

We provide consultancy services for HVAC starting from the concept stage, offering innovative solutions to meet our clients' needs.

### **Operation & Maintenance:**

We believe in the importance of maintenance, and as such, we provide preventive and emergency maintenance services on a short and long-term basis.









# **Energy Efficiency**

National Energy Supply Company [NESC] provides innovative energy efficiency and renewable solutions that lower utility costs, increase net operating income and profitability, improve facility performance and manage risk. Our projects typically reduce OPEX by reasonable percentage and financial payback periods.

### Services

- Develop a baseline model of energy consumption according to International Energy Efficiency Protocols (Level I,II and III)
- Identify and minimize the energy wastage
- Make changes to equipment and systems to save energy
- Retrofit energy efficiency technologies
- Exploit the renewable energy resources like solar Energy and winds energy
- Reducing the running costs
- Energy Audit: DFS-Detailed Facility Study.
- Installation of Energy Saving/Conservation Measures [ECMs].



• Measurement and Verification [M&V].

### Solutions

- LED lighting upgrades.
- Energy Management Systems
- HVAC optimization.
- Central plant upgrades.
- High efficiency pumps, motors and VFDs.
- Building envelope enhancements.



NATIONAL ENERGY SUPPLY COMPANY

# **Electric Vehicile (EV) Solutions**

National Energy Supply Company (NESC) considered EV Solutions as one of main potential solutions and offerings to Saudi Arabia market.

National Energy Supply Company In the past decade, it has been seen a surge in the use of new digital technologies. EV is highlighted one of the major CO2 reduction initiative National Energy Supply Company is a part of the technology growth in KSA market by investing and running agile mitigating the beloved kingdom transformation and become a preferred CPO in the market. Our partners expertise promise a best practice of world class service in EV, and EV Charging products & solution.

National Energy Supply Company has the collective knowledge in Energy & Power which's reflected environmental responsibilities allowing us to expand to new field of electric vehicle chargers with global companies, benefiting from their solutions and knowledge, to hunt EV opportunities in Saudi market.

# National Energy Supply Company's strategy to be one of the main EV solutions provider and to lead the market for EV stations and chargers

National Energy Supply Company (NESC) plans to establish strategic partnerships with international EV charger companies and electric cars.





NATIONAL ENERGY SUPPLY COMPANY

# Smart City Infrastructure / IoT & AI

National Energy Supply Company (NESC) considered IOT & Al Solutions as one of main potential solutions and offerings to Saudi Arabia market.

National Energy Supply Company offers sustainable buildings or facility through automation solutions and services that transform businesses through effective ideas, analytic algorithms

- Smart infrastructure
- Smart Governance
- Smart Education
- Smart Energy
- Smart Mobility
- Smart HealthCare
- Smart Buildings
- Digitalization in others

### Our solution contributes to ensuring the following:

- Reduced Energy Costs
- Reduced Building Operational Costs
- Reduced Facility Maintenance Costs
- Optimized Manpower
- Detailed history and records
- Monitored equipment performance efficiency





# **Renewable Energy-Solar Energy**

National Energy Supply Company (NESC) considers renewable energy as one of the main potential solutions and offerings to the Saudi Arabia market to align with the country's vision for 2030.

National Energy Supply Company believes that investing in solar energy benefits both society and the environment, and we are always striving to improve and develop our solutions to meet our customers' needs in the best possible way.

### Services and solutions:

- Installing solar power systems
- Designing
- Maintenance and technical support services





### **National Energy Supply Company**

01. Project Name & Type: SNB-Regional Office (Saudi National Bank) BOOT

Project COD: May 2007

Project Location: Riyadh, Saudi Arabia

Project Type: Cooling Solutions

Capacity:

Cooling 2,233 TR & 4710 KW Hot Water

ASSETS VALUE (SR): 6,370,778

Power taken from SECO for the Chillers - 600 kW

SNB





O2. Project Name & Type: SNB-IT Center (Saudi National Bank) BOOT
Project COD: May 2005
Project Location: Jeddah, Saudi Arabia
Project Type: Cooling Solutions
Capacity: 1,544 TR
ASSETS VALUE (SR): 6,993,896



Power taken from SECO for the Chillers - 800 kW

03. Project Name & Type: Princess Al-Anood Towers (I&II) BOOT Project COD: November 2011

Project Location: Riyadh, Saudi Arabia

Project Type: Cooling Solutions

Capacity: 3,315 TR

ASSETS VALUE (SR): 15,505,990

العنود للاستثمار

Power taken from SECO for the Chillers - 2100 Kw





# Project Name & Type: KRT King Road Tower BOOT Project COD: December 2011 Project Location: Jeddah, Saudi Arabia Project Type: Combined Heat and Power Solutions (CHP) Capacity: 4MW, 6,600 TR (NTCC generators) ASSETS VALUE (SR): 62,380,897



### **National Energy Supply Company**

- 05. Project Name & Type: SNB HQ (Saudi National Bank – Headquarters) BOOT Project Location: Jeddah, Saudi Arabia
  - Project COD: September 2014
  - Project Type:Cooling Solutions
  - Capacity: 2,388 TR
  - ASSETS VALUE (SR): 19,439,445
  - Power taken from SECO for the Chillers 600 Kw

SNB





- **06.** Project Name & Type: **Rafal Tower BOOT** 
  - Project Location: Riyadh, Saudi Arabia

### Project Type:

**Cooling Solutions and Hot water Supply** 

Project COD: October 2013

Capacity: 6,119 TR, Hot Water 3200 KW & 2.25 MW

ASSETS VALUE (SR): 38,660,107

Power generated for the chillers – 1200 kW



07. Project Name: Saudi France Bank

> Project Type: Design & Install Solar Systems

Capacity: 121.66 Kwp







08. Project Name: Al Romansiah Restaurant

> Project Location: Al Yarmouk – Riyadh

Project Type: Solar System (on Grid)

Capacity: 121.66 kWp





## National Energy Supply Company

09. Project Name: Saudi National Bank

> Project Type: Energy Efficiency

Capacity: Whole Facility







10. Project Name : Al marai Company

> Project Type: Energy Efficiency

Capacity Whole Facility



# **11.** Project Name:Islamic Arts Biennale - Ministry of Culture

Project Location: Jeddah, Saudi Arabia

Project Type:

**D&B-MEP-EPC** 

Built - up area: **33,000 m**<sup>2</sup>











# **ISO CERTIFICATIONS**

**National Energy Supply Company** 



# Bureau Veritas Certification

SOURCE ENERGY

BUILDING NO 3540, PRINCE SULTAN BIN ABDULAZIZ STREET, 7666 AL SULAIMANIYAH DISTRICT, RIYADH 12223, SAUDI ARABIA

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organisation has been availled and found to be in accordance with the requirements of the management system standards detailed below

ISO 14001:2015

Scope of certification

BUILD, OPERATE, TRANSFER OF DISTRICT COOLING AND DEDICATED COOLING PLANTS BUILD OPERATE, TRANSFER OF TRI GENERATION COOLING PLANTS OPERATION AND MAINTENANCE SERVICES OF COOLING PLANTS DEVELOPMENT OF COOLING PLANT AUTOMATION SYSTEMS

Original Cycle Start Date:	08-08-2022	
Expiry date of previous cycle:	NA	
Certification / Recertification Audit date:	22-06-2022	
Certification / Recertification cycle start date:	08-08-2022	
Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on:	07-08-2025	
Certificate No.: SA002916 Version: 1 Issue date:	08-08-2022	



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Certification Body Address: 5th Floor, 66 Prescot Street, London, E1 8HG, United Kingdom

Local Office: Bureau Veritas Company, Al Raja Tower, 6th Floor, King Abdulaziz Road, P.O. Box 20189, Al-Khobar 31952, Kingdom of Saudi Arabia.

Further clarifications regarding the scope and validity of this certificate, and the applicability of the system requirements, please cell: +964 13 8021071



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BUILDING NO 3540, PRINCE SULTAN BIN ABDULAZIZ STREET, 7666 AL SULAIMANIYAH DISTRICT, RIYADH 12223, SAUDI ARABIA

SOURCE ENERGY

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

### ISO 45001:2018

Scope of certification

BUILD, OPERATE, TRANSFER OF DISTRICT COOLING AND DEDICATED COOLING PLANTS BUILD OPERATE, TRANSFER OF TRI GENERATION COOLING PLANTS OPERATION AND MAINTENANCE SERVICES OF COOLING PLANTS DEVELOPMENT OF COOLING PLANT AUTOMATION SYSTEMS

Original Cycle Start Date:	08-08-2022
Expiry date of previous cycle:	NA
Certification / Recertification Audit date:	22-06-2022
Certification / Recertification cycle start date:	08-08-2022
Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on:	07-08-2025
Certificate No.: SA002936 Version: 1 Issue date:	08-08-2022
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Certification Body Address: 5th Floor, 66 Prescot Street, London, E1 8HG, United Kingdom Local Office: Bureau Veritas Company, Al Raja Tower, 6th Floor, King Abdulaziz Road, P.O. Box

20189, Al-Knobar 31952, Kingdom of Saudi Arabia. Further dufficiation reporting the scope and utility of this certificate, and the applicability of the management system requirements, plasse calls +9613801071



NESC



# **CLASSIFICATION CERTIFICATE**

**National Energy Supply Company** 



ر أس المال	جنسية المنشأة	نوع المنشأة	اسم مالك المنشأة	تاريخ إصدار السجل التجاري/ الترخيص	رقم السجل التجاري/ الترخيص	-1 -1 -1 -1 -1 -1
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الأششطة						
لقة الكهربائية والمحولات تركيب ييف الهواء وصيانتها واصلاحها,	أنشطة شهادة التصنيف					



- بِسري مفعول هذه الشهادة حتّى تاريخ 22/10/2024 - تصدر هذه الشهادة الكثرونيا وعلى الجهات المالكة للمشاريع التحقّى من الشهادة المقدمة من خلال موقع الوزارة.

وكيل الوزارة لتتظيم وشغلى المدن R. . فيصل بن حسبن الصقار



# SEEC CERTIFICATE

National Energy Supply Company

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ア ガ ガ ガ ガ ガ	شهادة ترخيـص ة الترخيص ، أصدر المركز السعودي لكف	تاريخ الإصحار : 7/4/2023 تاريخ الإنتهاء : 7/4/2024 رقم الطلب : PE20230100016 مرقم الطلب : بناء على قرار لجنا			
بيص مؤقت بيص مؤقت 17 17	ترخيص شركات خدمات الطاقة - ترخيص مؤقت إلاسم التجاري: الشركة الوطنية لامدادات الطاقة مم السجل التجاري: 1010251651 رقم السجل التجاري: 1010251651 نوع النشاط: تقديم خدمات التصميم الهندسي لمعايير كفاءة الطاقة و إدارة مشاريع كفاءة الطاقة و مراجعة البيانات والتدقية. فو بالميانم و تقديم خدمات				
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ألمركز السعودي لخفاءة الحائق المركز السعودي لخفاءة الحائق Saudi Energy Efficiency Center           ألمركز السعودي لخفاءة الحائق (مركز السعودي لخفاءة الحائق)           ألمركز السعودي لخفاءة الحائق		7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7			

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# let's work together.

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Email: info@nesc.com.sa



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