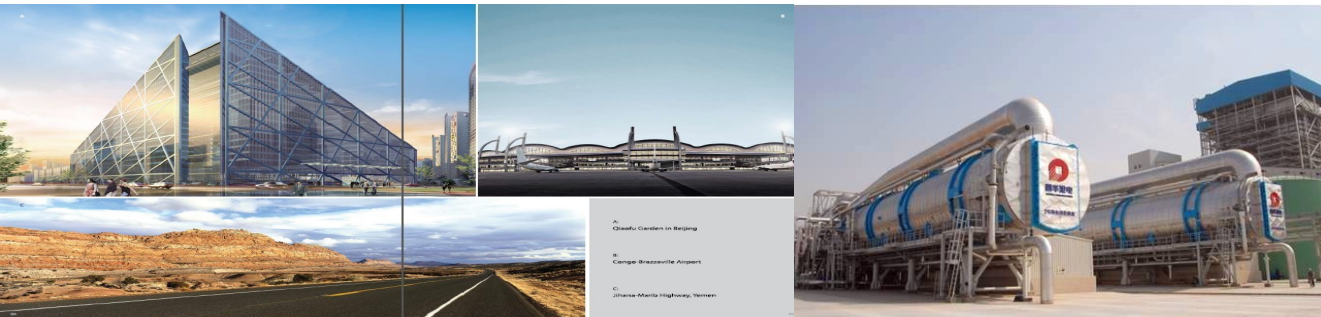




# The Development of Power plant & Infrastructure in Rabigh Industrial City

Dr. Wen, Hai Quan

JSG Saudi Co., Ltd. & JSG China Consortium



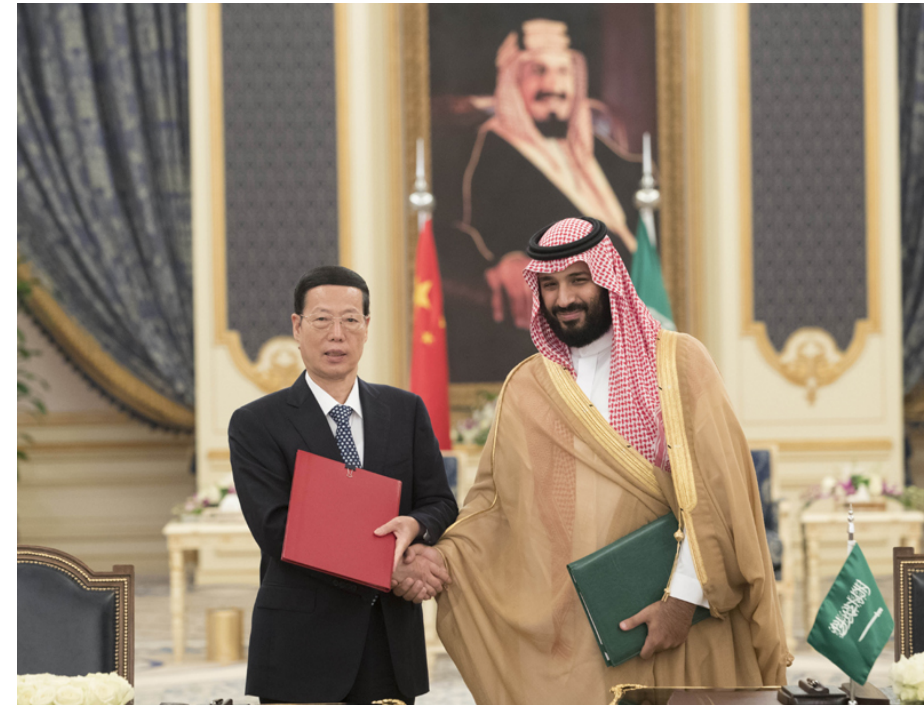
# Contents

- Why develop industrial cities  
**MODON Agreements and China Gov. support.**
- How to Realize ?
- Urgent Requirement!



# China – Saudi Leaders’ Support On Rabigh Power Plant

CCTVNEWS: <http://news.cctv.com/2017/08/25/ARTI6vhoistcZ2Is856s0ZtO170825.shtml>



[http://www.gov.cn/guowuyuan/2017-08/25/content\\_5220292.htm](http://www.gov.cn/guowuyuan/2017-08/25/content_5220292.htm) , 22-24 August 2017



# China and Saudi Arabia to team up on US\$20 billion investment fund





# Why develop Modon Rabigh Industrial City

**Modon authorize and issue official files and coordinate with China gov. !**

No.	Description	Issue date
9	Issue work permit to JSG for site works	2017/May/3
8	Received Exim Bank in Modon Headquater	2017/March/8
7	CEO of Modon with JSG CEO in G20	2016/Aug. 29
6	Confirm to provide Sovereign Guarantees	2016/June
5	Received the progressive report and to instruct to complete FSRs & EIA	2016/Feb. /14
4	Send to Minister of MOFCOC to announce that Modon authorize JSG to manage China resources exclusively for IMC projects.	2015/Oct. /8
3	Send Congratulation Video to JSG Beijing express meeting	2015/Aug. /28
2	Invite China Ambassador and Economic consuller to introduce the IMC projects	2015/July/17
1	Priority for Salwa & Rabigh, provide all guarantee and sign obligation contract	2015/June/30







# Modon meet with Exim bank in March 2017

Modon invite Exim bank, JSG in **8 March 2017.**



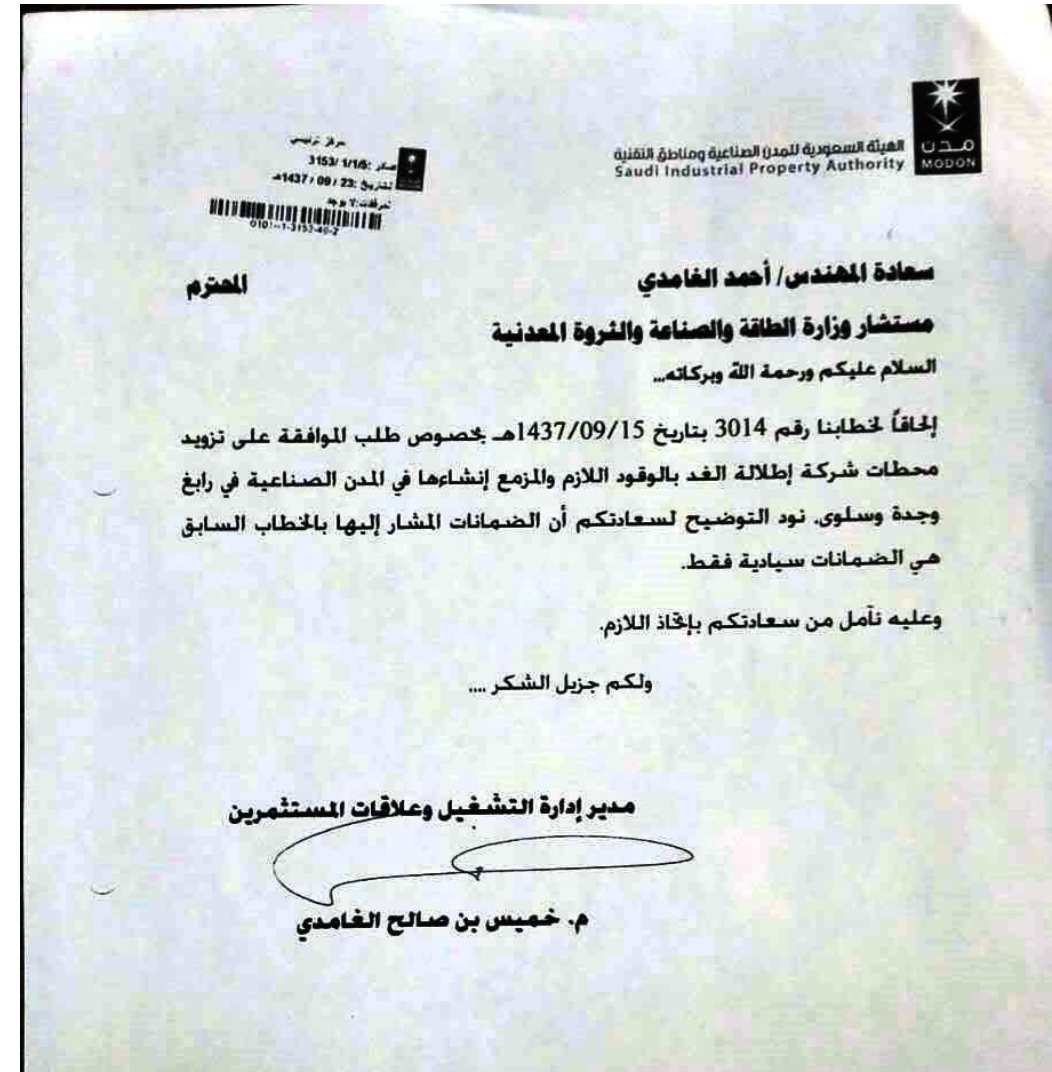
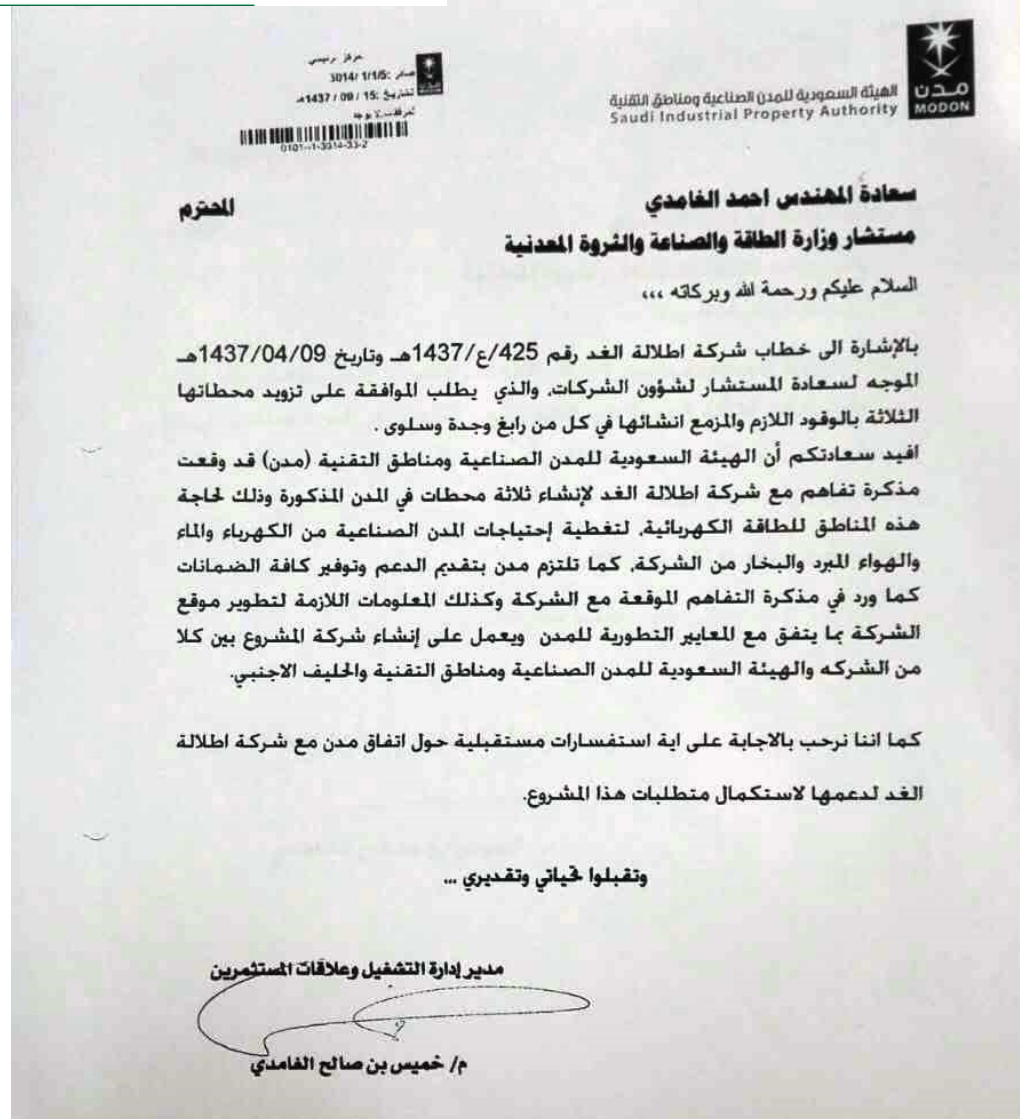


# Modon CEO with DR.WEN in 29 Aug. 2016/ G20





# Modon Confirmed to provide all guarantees sovereign guarantee in June 2016





# Modon **send** official letter to JSG to instruct to do FSRs and EIAs

Modon received the progressive Report and instruct to **complete FSRs and EIAs for Sovereign Guarantee on 14 Feb. 2016**

Subject: Sovereign Guaranteed for power plants and infrastructure projects.

Dear Sirs ,

Thanks for your submittal of progressive report on power plants and infrastructure projects for Rabgh, Salwa, Jeddah2 and 3 industrial Cities, According to the plan you will complete the Feasibility study reports before the end Feb/2016 and the environmental assessments by March/2016. We will study the report for sovereign guarantees for the implementation of projects mentioned above According to the regulation on Saudi Arabia and we will come back to you with the result after getting the necessary approval.

We hope to have more practical progresses soon.

Best regards,

**Eng. Khamis S. Alghamdi**

**Operations and Investor Relations Director**

[www.modon.gov.sa](http://www.modon.gov.sa)

9 2 0 0 0 4 2 5 الإدارة العامة: ص.ب: 84214 – الرياض 11671 – المملكة العربية السعودية  
+966 11 8749019 Head Office: P.o.Box: 84214 – Riyadh 11671 – Kingdom Of Saudi Arabia



# Modon **send** official letter to the Minister of Foreign Commerce of China/MOFCOC

to confirm that Modon has **authorized JSG to execute** the projects of Salwa, Rabigh, Jeddah 2-3 ICs and JSG **exclusively manage** all China resources to participate the projects

**To request Preferential buyer credit loan from EXIM BANK!**

**In 8 October 2015**



الهيئة السعودية للمدن الصناعية ومناطق التقنية  
Saudi Industrial Property Authority

Date: 8 October 2015  
Ref. No. IMC-JSAR4C-15002

To: Mr. Gao Hucheng,  
Ministry of Commerce of the People's Republic of China

cc. Zhao LiuQing Commercial Counsellor  
Economic & Commercial Counsellor of China Embassy in KSA  
cc. Mr. Li Chengwen, Ambassador  
China Embassy in KSA

Subject: Request your approval of **preferential buyer' credit from EXIM** on implementation of Itlalat MODON Consortium Company Tri-generation Power plants and infrastructure projects in Salwa, Rabgh, Jeddah Industrial cities

Dear Mr. Gao,

It is pleasure to have a communication with you. First all, I thank you to support Dr .Wen and JSG consortium with China EPC contractors, banks and manufactures for Itlalat MODON Consortium Industrial Cities projects.

As you know, we are Saudi Industrial Property Authority (MODON), is a governmental agency responsible to manage the industrial cities inside KSA. We have developed 34 industrial cities and potential to increase this number near future years. Therein we have signed exclusively MOU with Itlalat Al-Ghad Group (IAG in short) to develop four industrial cities, Rabgh, Salwa, Jeddah 2 and 3 and to provide with water, electricity, cooling, and infrastructure, etc.

We agreed to establish a new project company among IAG, MODON and JSG called "Itlalat MODON Consortium Company" (hereinafter referred to as "IMC") which will be exclusively responsible for developing, operating and maintaining the industrial cities. Then, **JSG will be authorized to execute our projects and exclusively to manage all China resources to participate our projects implementation.** Now, our partner, JSG-NIT TIAC Institute Co., Ltd., has held Press Conference in Beijing on 28 in Beijing, organized Banks and Financiers, consultant contractors, the third independent audit parties, EPC contractors, O&M contractors. Also, deployment and mobilization has scheduled, the site office has arrived on Dammam port on 28 Sept. 2015.

The main players are Chinese national companies, such as Financiers: Industrial & Commercial Bank of China, Bank of Communication, Ping An Group; EPC contractors: China Machinery Engineering Corporation(CMEC), North China Power Engineering Co., Ltd. (NCPCE), Harbin Electric International Co., Ltd. (HEI), ... etc. The independent third audit parties: Ernst Yong, Worleyparsons and Grandall.

Because the financing is from China and the projects are implemented by Chinese National Companies, **we request your kind supports to approve for preferential buyer' credit from EXIM** on implementation of the projects. And request you to support and negotiate relative works from our Chinese organizer JSG. Also, the success of the Power Plants and Infrastructure Projects marks that the cooperation between China and Saudi Arabia has been further deepened and the road of "globalization" for Chinese enterprises will become increasingly broad. The project will accomplish the synchronous development of both countries' economy and society, and open a new page for China-Saudi Arabia cooperation. It is appreciate for your kind supports.

Best regards,

Operations and Investor Relations Director

Khamis S. Al-Ghamdi





28 AUG. 2015

# Modon send official **Congratulation video** for the **EXPRESS MEETING IN BEIJING**



**More 100 companies and 20 Medias attend!**

# Modon invite China Ambassador and consular to introduce the Projects

**2015.7.17**





# Modon send official letter to Confirm to provide all guarantees and Modon office for the projects

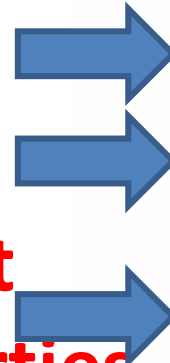


Referring to your Letter dated 31/05/2015, in regard to provision of the necessary information for accomplishment of the works as per agreement between Modon and Itlalt Al Ghad Company kindly find the answer to all your inquiries:

- First priority is for Salwa, Alahssa and Rabgh Industrial Cities; MODON has started the development of the roads network and there is a priority and need for the Water and Electricity Services.
- Regarding the Costal lands, MODON is discussing this topic with the Municipality. It is suggested that this might be a part of Jeddah 2 expansion.
- Saudi visas for the work team are Company's responsibility; however, MODON will provide all necessary letters to support Itlalt Al Ghad in their efforts to ensure visa for their international partner employee.
- In regards to the offices, MODON will check the avaiblaty in that time while company team can be boosted at modon .
- In regards to the guarantees that Modon needs to provide we wish to conclude the following:
  - a. Modon will provide all guarantees as stated in the Agreement
  - b. Modon, as a Government Authority has the right to sign the contract with Private Sector Entities
  - c. MODON will sign a dedicated contract that will define the obligation for all parties
  - d. The tariff will be determined with Modon according to the current rules and regulations
  - e. MODON will provide all necessary land for factories and the building facilities that Itlalt Al Ghad requires according to the agreed rent rate

Modon confirm

- 1. Priority: Salwa, Rabigh**
  2. Provide all guarantees;
  - 3. Modon will sign the contract to define the obligation for parties**
- On 30 June 2015**





# JSG spent USD14m

## Expense Breakdown for Modon Projects/4 years

Description	Currency	Sub. Total	Remark
JSG Spent			End to Dec. 2016
1 JSG Patents and Technologies Application	USD	JSG Investment	3 PPs. KSA patent registered
2 Concept Deisign-Technical-Economic Mode	USD	946,666.67	
3 Surveying, Geotechnical and EIA	USD	2,844,000.00	Arenesco, KSA
4 Feasibility Study Report 4+3	USD	2,591,436.60	ChinaNorth Engineering, JSG
5 3rd party-Worleypzrson-Turgenbo-EY-Grandal	USD	1,025,854.70	end for 7 FSRs
6 Operation Cost for Chinese	USD	1,878,412.13	
7 Salary for Chinese	USD	2,606,767.20	June 2014 to Dec. 2016
8 Office and travelling Expense	USD	753,292.88	
9 Operation Cost IN SAUDI	USD	1,440,000.00	Jan. 2013 to Dec. 2016
TOTAL	USD	14,086,430.17	
	SR	52,824,113.15	End to Dec. 2016

# China Government Support

## NDRC Key Projects Listed/30

### 10. IMC Rabigh Tetra-Generation Power Plant/CMEC



[http://www.icc-ndrc.org.cn/news\\_detail.jsp?id=60593](http://www.icc-ndrc.org.cn/news_detail.jsp?id=60593)

List of Key Projects of China Saudi Arabia Cooperation

#### 中沙产能合作重点项目清单

(2017年3月) March 2017

No.	序号	项目名称	Project Title
<b>在建项目 On-going projects</b>			
1	吉赞瓦燃气化联合循环电站电站包与公用包的 EPC 总承包项目 (山东电力基本建设总公司)	<b>JIZAN Gas CC Power plant and Utilities EPC/SEPCO</b>	
2	燃气增压站项目 I 期 (山东电力基本建设总公司)	<b>Gas Station Phase 1/SEPCO</b>	
3	燃气增压站项目 II 期 (山东电力基本建设总公司)	<b>Gas</b>	
4	网络现代化改造项目 (华为)		
5	村村通覆盖项目 (华为)		
6	沙巴哈 220-250MW 联合循环改造电站项目 (山东电力基本建设总公司)		
7	老城区改建项目 (华为)		
8	15 万吨离心球墨铸铁管厂项目 (新兴铸管国际发展有限公司)		
<b>潜在项目 Developing Projects</b>			
1	精炼销售项目 (待定)	<b>Refinery.TBD</b>	
2	化学制品配套煤炭项目 (神华宁夏煤炭工业集团)	<b>Chemical aux. vs Coal</b>	
3	精对苯二甲酸 (PTA) 和瓶级聚对苯二甲酸乙二醇酯 (PET) 及下游产品项目 (广州泛亚聚酯有限公司)	<b>PTA, PET</b>	
4	橡胶输送带项目 (中国化工橡胶有限公司)	<b>Rubber Conveyor</b>	
5	吉赞-中国产业聚集区项目 (广州开发区工业发展集团有限公司、银川育成投资有限公司)	<b>Jizan China Zone</b>	
6	集成硅项目复合体项目 (中国蓝星 (集团) 股份有限公司)	<b>Integrated Silicon</b>	
7	高温气冷堆海水淡化项目 (中国核工业建设集团公司)	<b>HTGR Desalination CNEC</b>	
8	高温气冷堆核电项目 (中国核工业建设集团公司)	<b>HTGR Nuclear power CNEC</b>	
9	智能电表项目 (华为)	<b>Smart power meters</b>	
10	拉比格工业城四联产燃机电站项目 (中国机械设备进出口公司)	<b>IMC Rabigh Trtra-Gen. power plant CMEC</b>	
11	沙特电力 SEC PP15 联合循环独立电站项目 (上海电气集团股份有限公司)	<b>SEC PP15</b>	
12	生活垃圾资源化利用项目 (潍坊金丝达新能源科技有限公司)	<b>Garbage application</b>	
13	太阳能光伏价值链项目-500兆瓦 (REC Solar)	<b>500MW SOLAR POWER STATION</b>	
14	太阳能光伏价值链项目-1000兆瓦 (天合光能有限公司)	<b>1000MW SOLAR POWER ST.</b>	
15	公路 309 标段项目 (中国交通建设股份有限公司)	<b>Road 309/CCCC</b>	
16	利雅得市智慧城市项目 (华为)	<b>Riyadh Smart City/Huawei</b>	
17	公路 313 标段项目 (中国交通建设股份有限公司)	<b>Road 313/CCCC</b>	
18	延步工业城高级轮胎厂项目 (中工国际工程股份有限公司)	<b>Yanbu Tire</b>	
19	铁路货车项目 (包头北方创业股份有限公司)	<b>Railway Cargo</b>	
20	碳纤维项目 (中国蓝星 (集团) 股份有限公司)	<b>Carbon Fiber</b>	
21	家用电器项目 (海尔)	<b>Home appliance/Hair</b>	
22	沙特电力公司私有化项目 (上海电气集团股份有限公司)	<b>SEC PPP</b>	





# China Government Support


## MOFCOC Approved \$3billion



**中华人民共和国商务部**  
Ministry of Commerce of the People's Republic of China

**MOFCOC approved USD 3b for  
IMC Rabigh Tetra-Generation  
Power Plant  
Valid till 27 January 2018**

**对外承包工程项目投（议）标核准证**  
No. 0019858

持证 企业 名称	1. 中文: 中国机械设备工程股份有限公司	1100100000710
	2. 外文: CHINA MACHINERY ENGINEERING CORPORATION	
经审核，同意该企业参加下述项目的投（议）标。		
项目 名称	3. 中文: IMC拉比格四联发电厂项目	第一联 交银行受理凭证
	4. 外文: IMC Rabigh Tetra-Generation Power Plant Project	
业主 名称	5. 中文: IMC项目公司	
	6. 外文: Itlalat Modon Consortium Company	
7. 所在国家（地区）: 沙特阿拉伯		8. 项目行业类别: 电力工业—火电站
9. 预计项目合同金额（万美元）: 300000		10. 资金来源: 国内出口信贷：工商银行
11. 批准编号: 2017外经贸合许字102825		14. 发证机关印章: 
12. 许可证有效截止日期: 2018-1-27		
13. 备注:		15. 发证日期: 2017-7-27

商务部监制（2013）





INTEGRATED  
MODON  
CONSORTIUM  
COMPANY

# Money is ready by Exim Bank SINOSURE approved



## All China' approvals are completed !



# **JSG China Consortium**

## **We are ready for everything**

**JSG a the leader of the consortium, the provider for patents and tech.**

**Independent third party auitors,**

**CONSULTANTS, ENGINEERING, EPC CONTRACTORS,**

**MANUFACTURERS; O&M CONTRACTORS, 20+ INVESTORS;**

**And completed the followings;**

**Feasibility Study Report, FSR; Environment Impact Assessment, EIA**

**Rabigh Tetra-Generation Power plant**

**Electricity: 1000-1200MW, Water: 100,000-200,000 M3/d;**

**Cooling for 200,000 sq.m; Chemical salt: 120t/d**

**Emission: NO<sub>x</sub> 51.3mg/ m<sup>3</sup>**

**Gross Efficiency: >70%**

## Who we are?

JSG found in 1991

Saudi Affiliate since 2002

## HOW TO ATTRACT INVESTORS?

**Price commitment**

**Lower 10% of market price** to supply water, electricity, steam, cooling, air, ...

Industrial Plaschem  
**MORE ATTRACTIVE**

Factories/Investors  
**MORE COMPETITIVE**

**Modon: Owned 100%, and to Grant operation rights of electricity and water; assist and witness to sign offtaker agreement;**

**Offtaker agreement:**\*Either steam/cooling/air purchase agr. Or Power/water Purchase Agreement. To get cheaper Steam to supply.

\*Demand planning



01

# What we do?

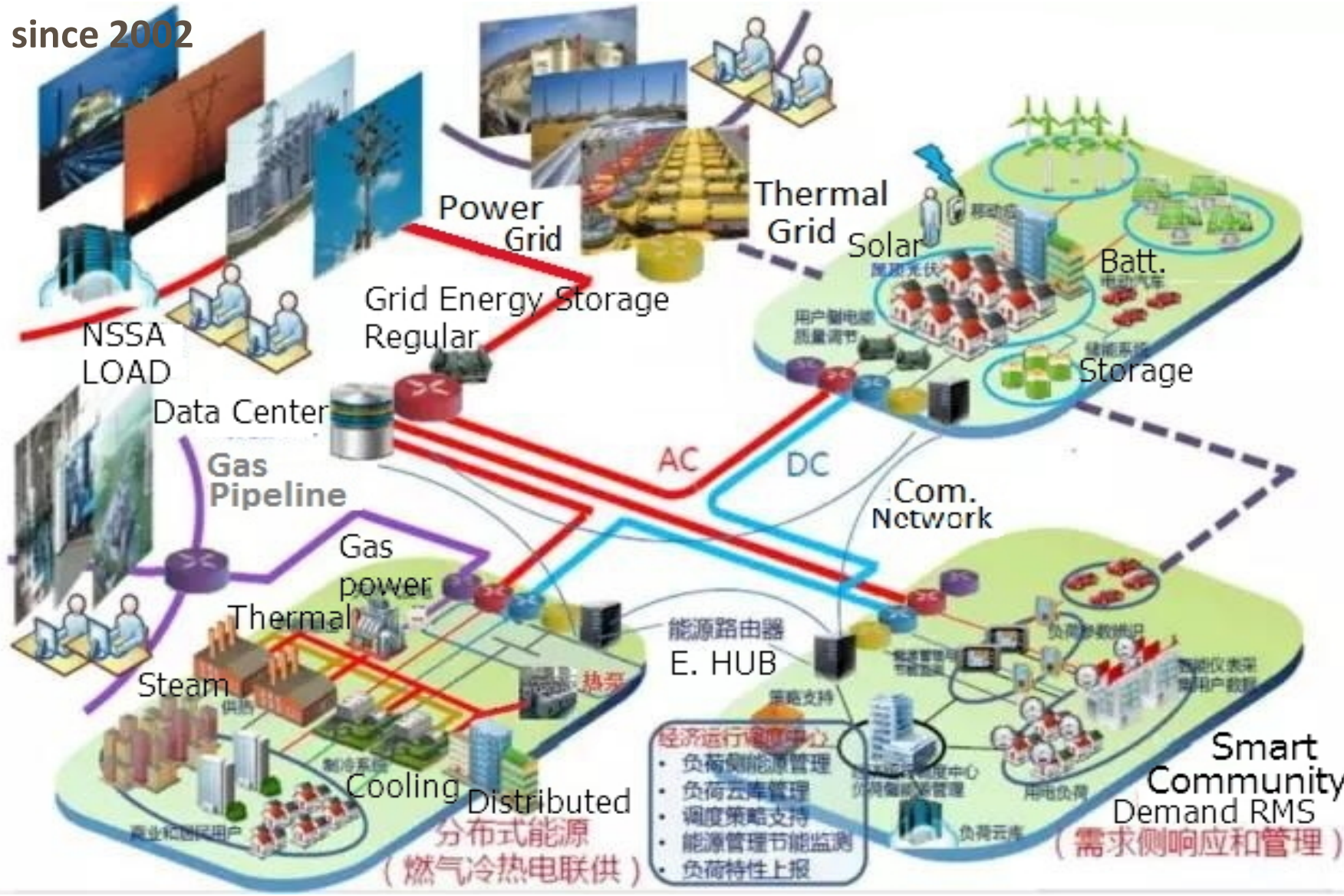
JSG found in 1991

Saudi Affiliate since 2002

# Distributed Utilities Provider



**Operated in Suzhou Singapore Industrial Park**



01

# What we do?

SG found in 1991

Saudi Affiliate since 2002

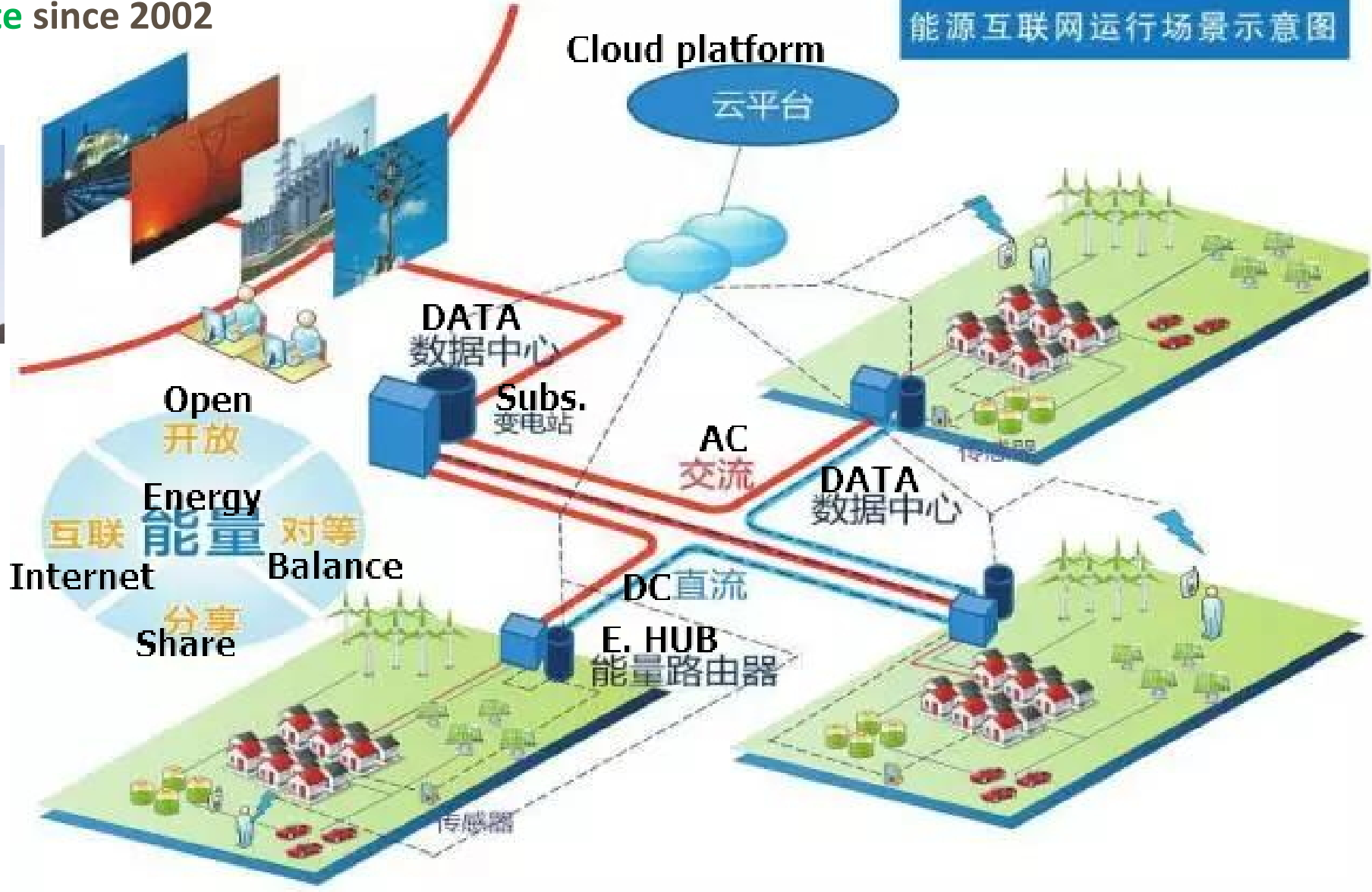
# Intelligent Energy Management

Energy Internet Operation Show

能源互联网运行场景示意图



Operated in Suzhou Singapore Industrial Park







03

# BUSINESS MODEL

Dr. Wen Haiquan/ JSG Saudi Co., Ltd.



# Utilities Co. **Integrated MODON Company** IMC owner **Business Model**

SPV for three industrial cities and its captive power plants.

## Ownership

100%

25 years  
Operation Right

25 years  
Operation Right



JSG

Financing

Building

O & M

Pay back

Profit

Partial profit share

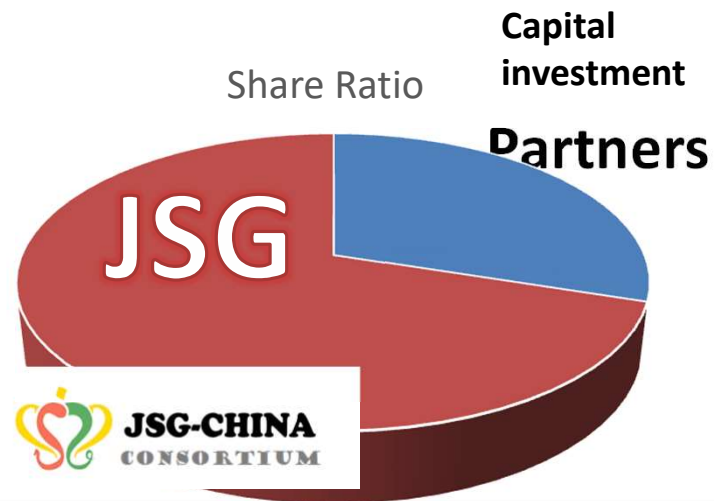
MODON



Utilities Co.  
IMC owner

# Business Model

## Integrated Modon Company



EPC contractors,  
O&M  
contractors,  
Financing  
parties  
.....

**Modon** Responsible for:  
Granting operation rights for electricity &  
water and witness to sign power, water  
purchase agreement partial,  
to provide Land as investment for **a**  
**shareholder**

Responsible for:

■ Modon   ■ JSG consortium

planning, organizing, financing, building,  
operation and maintenance

### During in Operation

# Business Model optional Integrated **M**odon **C**ompany



**IMC** is SPV for 25 years operation to provide water, electricity and chilled water

## Ownership



25 years  
Operation Right



Financing

Building

O & M

Pay back

Profit

Partial profit share  
<20%



## Authority-RC





# Business Model

## Integrated Modon Company

### MODON TO DO!

1. Grant JSG Co. operation rights of water and electricity;
2. Assist and witness to sign PPA, WPA and CPA;
3. Assist to obtain the allocation and gas supply;

### JSG TO DO!

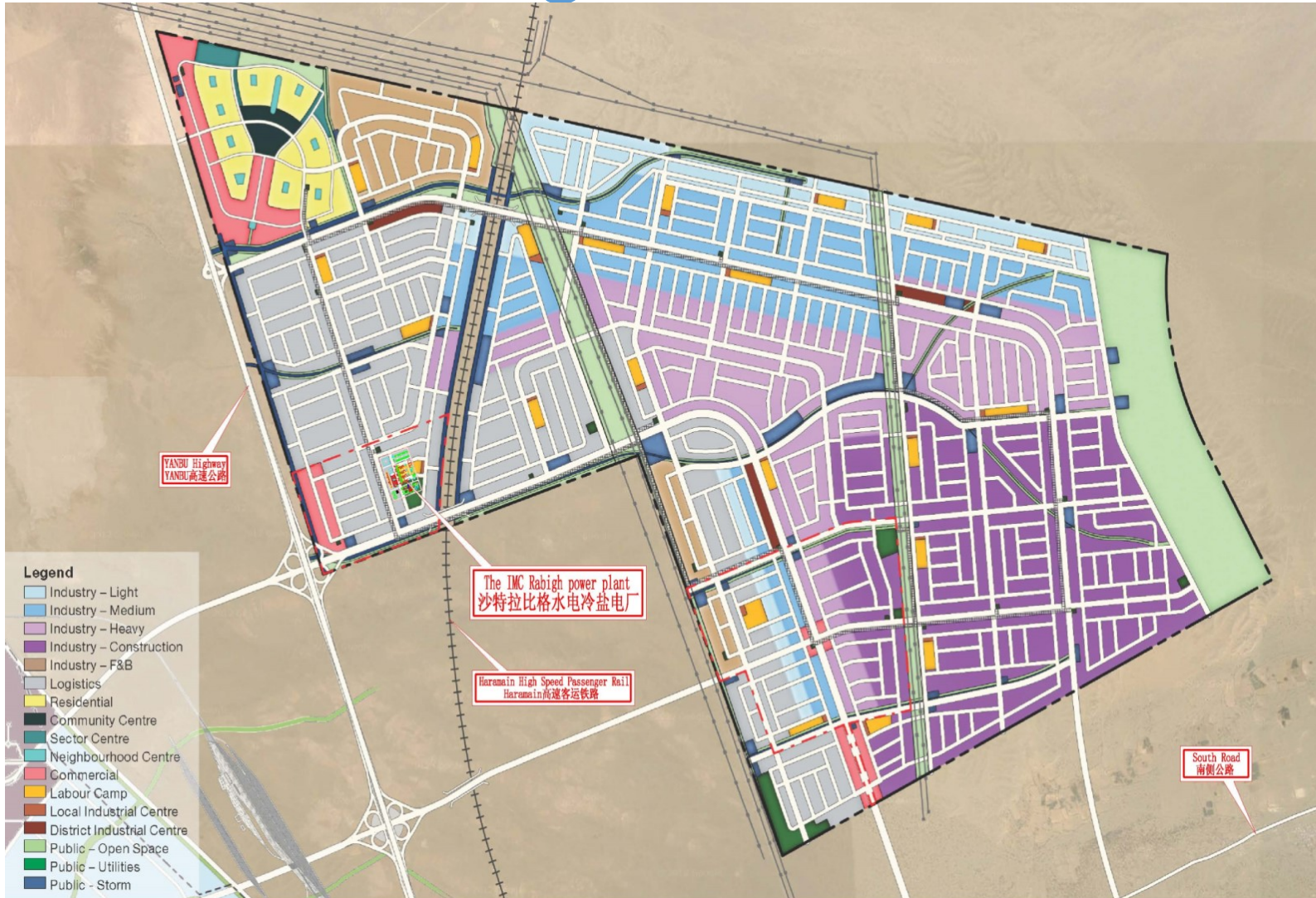
1. Provide patent technologies, like 515360031,
2. Manage, financing, build, operate and maintain
3. Provide Human Resources, materials and machines required in building and operating of the projects
4. Establish 4+ industrial firms in RC Jubail.
5. Establish training institute to Saudize the industry.

### Clients: Offtakers

1. Sign PPA, WPA and CPA. Demand planning!
2. Provide adequate financial guarantee. .

# Geographic survey, topograph, FSR and EIA all completed

## Rabigh Tetra-Generation



الأحداثيات:  
**X : 51722330943868414**  
**Y : 249463577381418459**

North China Power Engineering Co., Ltd.	HW RABIGH TETRA-GENERATION POWER PLANT TITLE	SCALE	1:20000
DATE	DATE	DATE	DATE
DESIGNER	CHECKER	DATE	DATE
SITE LOCATION AND OVERALL PLAN OF SITE		厂址地理位置及总体规划图	



**Geographic survey, topograph, FSR and EIA**  
all completed

# Rabigh Tri-Generation

Design      Grid      Modon      KAEC      Petro-  
Rabigh      SEC      WEC

Electricity, MW	1000-1100	137.5	200	200	300	300	0
Water, M3/d	200K-100K	Reserved	30K	40K	40K		90K
Cooling, KW	60,000		20,000	25,000	25,000		0





**Geographic survey, topograph, FSR and EIA**  
all completed  
**Rabigh Tri-Generation CUP**

## Output Schedule

Rabigh Tetra with Gas and double expandable						
Output/Months	3 - 6 Months	6-36 Months	39 Months	42 Months	45 Months	48 Months
Est. Month/Year	Jan. -March 2017	3/2017-Dec. 2019	Jan. - March/2020	April-June/2020	June-Sept. /2020	Sept. - Dec. /2020
Electricity, MW	0.5 - Nx1.8	5 - 50	300	600	900	1200
Water, c. m/d			25000	50000	75000	1000000
Cooling, sq. m			75000	150000	225000	300000
Salt, Ton/d					60	120

Note: 1. all construction power generated by contractors;

2. To meet the development requirement of industrial cities, we shall build up local power station inside factory or area distribution set as standby dual power in future; ①it takes 3 months to supply for 5 MW or less power by diesel generators; ②6 months supply for 50 MW or less power by light turbine packages

# What MODON to do?

1. To sign MOU and support letters, (3 cities' MOU signed in 2013)
2. To Sign developing agreement with JSG ( authorized ).
3. To Grant JSG the 25-year operation right
4. To Provide fully bankable guarantee
5. To Provide governmental permits, ECRA licenses and no objection certifications for the power plant
6. To Grant JSG exclusive suppliers of utilities service
7. To Assist JSG to sign fuel supply agreement from Aramco
8. To Provide the land and existing facilities free of charge.
9. .....

# What JSG do?

1. Has paid **USD 14,086,430,17** till Dec. 2016 for the expenses in China and Saudi, .
2. To sign developing agreement with Modon;
3. To provide patent technologies, like 515360031,
4. To manage financing, building, operation and maintainance, paybacking loan till transferring to Modon
5. Provide Human Resources, materials and machines required in building and operating of the projects
6. To Invest the initial capital to meet the requirement of financing
7. To Provide performance guarantee during construction
8. To be responsible to payback the loan during operation years
9. ...



# Geographic survey, topograph, and EIA On-going Feasibility Study Report completed

## Salwa Tetra-Generation CUP





**Geographic survey, topograph, and EIA On-going  
Feasibility Study Report completed**

## **Salwa Tetra-Generation CUP**

**Designed:**

**Electricity: 1824MW**

**Chemical Salt: 120t/d**

**Water: 200,000 m<sup>3</sup>/d**

**Cooling for: 500,000 sq.m**

**Gross Efficiency: 73.50%**

**Geographic survey, topograph, and EIA On-going  
Feasibility Study Report completed**

**Salwa Tetra-Generation CUP**

**Output Schedule**

Salwa Tetra with Gas/HFO and double expandable						
Output/Months	3 - 6 Months①	6-36 Months②	39 Months	42 Months	45 Months	48 Months
Est. Month/Year	Jan. -March 2017	3/2017-Dec. 2019	Jan. - March/2020	April-June/2020	June-Sept. /2020	Sept. - Dec. /2020
Electricity, MW	0.5 - Nx1.8	5 - 50	420	840	1300	1824
Water, c. m/d			50000	100000	150000	200000
Cooling, sq. m			125000	250000	375000	500000
Salt, Ton/d					60	120

Note: 1. all construction power generated by contractors;

2. To meet the development requirement of industrial cities, we shall build up local power station inside factory or area distribution set as standby dual power in future; ①it takes 3 months to supply for 5 MW or less power by diesel generators; ②6 months supply for 50 MW or less power by light turbine packages





**THANK YOU !**