Monenco Iran Consulting Engineers

Spring 2014 No. 2

Newsletter

- *Message from Market*
- *New Fields*
- *Sample Projects*
- *Human Resources*
- *Measuring Customer Satisfaction*

1. Renewable Demand in the Middle East

Although major and important parameters in energy field is based on fossil and fuel in the Middle East; the general fortuity in using renewable energy have been increased.

Middle Eastern countries with population of 209 million used to possess about 3.8% of world electricity generation. According to statistics, However, share of the electricity produced from renewable energy has been increased from 1321 twh in 1973 to 4491 twh in the world.

In accordance with the statistics, the share of installed renewable energy capacity in the Middle Eastern countries are as follow; 15,614 MW of Hydro, 661 MW of Wind, 336 MW of Solar (PV), 137 MW of Solar (CSP), 92 MW of Biomass & waste and 0.02 MW of Geothermal. However, all these countries have set their renewable energy capacity targets which indicates an additional capacity of; 31,840 MW of Solar (CSP), 28,824 MW of Wind, 24,929 MW of Solar (PV), 3637 MW of Biomass & waste, 1,200 MW of Geothermal and 40 MW of Hydro by 2032.

When overall targets are examined by technology, wind and solar are clearly the primary technology choices. Moreover, it is obvious that the electricity generation from renewable will have ambitious increase by 2032.

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New Fields

2. Desalination

Population growth of Iran, increase of water usage in municipal and industrial sectors as well as decrease in water resources, has resulted in water stress according to Falkenmark indicator. This has made a move towards new water sources paramount in Iran's future. Desalination of sea water and brackish water is a solution to provide more fresh water.

Monenco is involved in the "Study of Desalination Opportunities in South Coast (Persian Gulf and Oman Sea) of Iran" project which concentrates on a complete study to choose the best desalination technology for each site in Iran according to different site conditions, water demand, intake water properties and etc. Monenco started in this field concentrating on literature survey, water and desalination statistical study (especially in MENA and Iran), governmental studies in water and desalination, activities of other companies in the region.

Also evaluating the sea water and brackish water resources in Iran and choosing critical regions considering water demand and techno economical analysis of various desalination plants with emphases on variation of power block output, desalination technologies and water demand has been considered which would lead us to prepare a valuable Business Plan on this subject.

3. Industrial Projects, Steel Mill

Stepping into the field of Strategy Determination of Feasibility Studies and Design of Industrial Plants, especially Steel Industries is indication of Monenco's engineering capability in Metallurgical Plants. The core of this activity is our experts.

However, Penetrating in this field started by Anahita Steel Making Factory which will be carried out by Determination of Strategy and Technical and Commercial Feasibility Study.

Sample Projects

4. Engineering design and Site Supervision Services for five 400/63 and 230/63 kV Substations in Esfahan Regional Electricity Company (EREC)

Start date: 2013
Client: Esfahan Regional Electric Company (EREC)
Location: Esfahan (Iran)

Description:
These five substations will be connected to the national network through overhead lines. Regional electric stability will be increased by connecting this substation to the network.
This project which has been financed by Islamic Development Bank (IDB Bank), is very important in terms of configuration and maneuver operation.
Therefore, Monenco is responsible for Conceptual Design, preparing EPC contactor's scope of work, tendering and selecting EPC contractor, contractor's design inspection, FAT Inspection, Site Supervision, project and contract management as well as Engineering of HV, LV, Civil, Electrical and Mechanical.

5. Power Evacuation System Studies for Salalah Power Plant (IPP-2)

Start date: 2013
Client: Dhofar Power Company (DPC) - Oman
Location: Oman

Description:
As part of development of the Dhofar region, the Government of Oman has planned an independent power plant (IPP-2) in the Salalah area. The proposed IPP-2 will be rated in the range 300-400 MW and its power output shall be evacuated through DPC transmission network within the Salalah Power System (SPS).
In view of the above, DPC opinion was that detailed system study is required for finalization of proposed size of the plant, point of injection, the maximum unit size and additional transmission substation requirement for the power evacuation.
in this project, Monenco is responsible for Detailed System Study for finalization of proposed size of the plant, point of injection, the maximum unit size and additional transmission-substation requirement for the power evacuation.

6. Project Management Engineering Services for Kermanshah Bioethanol Production Plant

Start date: 2013
Client:
Gostaresh Sokht Sabz Zagros (Zagros Green Fuel Development Co.)
Location: Kermanshah - Bisoton Industrial Zone (Iran)

Scope of works:
Project Management Engineering Services for all phases of Bioethanol Production Project such as;
- Feasibility Study
- Basic Design Engineering
- Details Design Engineering
- Procumbent
- Construction
- Pre-commissioning
- Commissioning
- Test Production
- Steady Production service

Description:
This project is very important since it reduces the air pollution caused by gasoline fuels through using bio-ethanol fuel instead of MTBE which is a chemical and carcinogen material also increases the Octane of Gasoline. Accordingly, 200,000 liter-day Ethanol Alcohol (66 Million liter-year) and other auxiliary production from corn and other cereal feeds will be produced in this project.

7. Consultancy Services and Supervision of Construction of Coke Manufacturing Plant

Start Date: 2013
Client:Iran Minerals Production and Supply Co.
Location: Mazandaran (Iran)

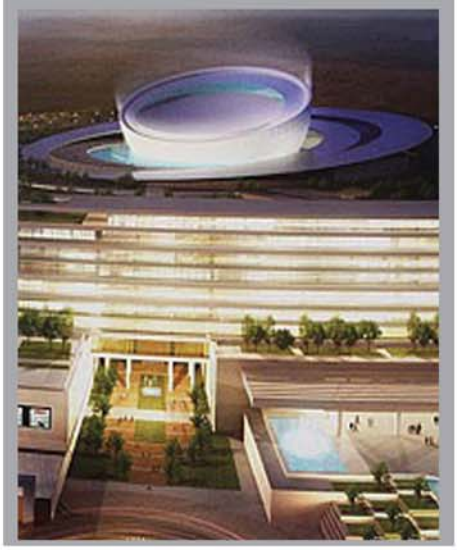
Scope of work:
consultancy services and supervision for project financing, basic & detail design, engineering, procurement, manufacturing, provision and delivery of drawings and documentation, supply and delivery of Plant and Equipment, civil works, erection of steel structure, Plant and Equipment, testing, successful commissioning, rendering supervisory and technical assistant services, training of IMPASCO personnel & infrastructure works.

Description:
Construction of Coke Manufacturing Plant with the capacity of 300 thousand ton coke and 25 MW power generations is under the action. The plant is located in Mazandaran Province (Savadkooh). Therefore, Monenco is responsible for consultancy services and supervision on 25 MW Power Generation Plant from Heat Loss Recovery.

8. Site Supervision Services on Esfahan International Convention Center

Start date: 2013
Client: Isfahan Municipality
Location: Esfahan (Iran)

Description:
This project is a multipurpose project with the aim of hosting the Non-committed Countries (160 countries) Summit and is located in the southeast of Esfahan.
This massive complex includes conference center with auditorium building and administrative wing, 8 storey 5 star hotel, multi-purpose hall, VIP villas, restaurants and etc. in addition, the plan has been placed 1st among other plans in Iran 4th National Conference of Structure and Steel.
Monenco has been assigned for Site Supervision Services for this mega project.



9. Engineering, Basic Design and Supervision of Copper Industry SCADA System

Start date: 2013
Client: National Iranian Copper Industries Company
Location:
Shahre Babak - Kerman (Iran)

Description:
The whole electrical infrastructure of Shahr-e Babak Copper Production Complex include; Miduk Copper Mine, Khatunabad Copper Smelting as well as some private HV Electrical Substations will be monitored and controled through a hierarchical SCADA System.
Through implementation of this project, the client will acquire enough visibility for better supply and maintain of electrical power to each individual copper plants which are involved in the Copper Production process such as Concentration, Smelting and Refinery.
Energy management is also another important purpose of this project.

10. Human Resources

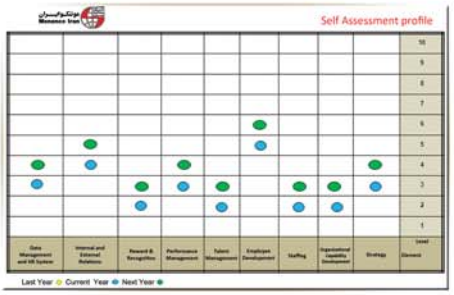
Philips; Process Survey Tools

PST is used to assess the HR Processes Maturity. The concept of the mentioned tool is to reach continuously the higher levels of performance.
Following items are considered in this assessment:

- Process survey Tools (PST)
- Tools for assessment of KEY and supporting processes
- Measure the maturity of the defined KEY HR processes and achievement of results
- Identify opportunities for improvement, thus becoming more competitive
- Enhance learning through sharing best practices

Elements which are the sub-process of the HR are as follow;

1. HR strategy process
2. Organizational Capability Development
3. Staffing
4. Employee Development
5. Talent Management
6. Performance Management
7. Reward& Recognition
8. Health & Safety
9. Internal and External Relations
10. Data management and HR system



Each element includes 10 levels of maturity. However, these levels start from Approach then deployment towards world-class. In addition, the step score implies that we satisfy all the requirements of that step and the below ones. In Monenco Maturity of HR Process has been implemented and measured in a self assessment as shown in the above table. The score of each level identifies opportunities for Monenco improvement. Also, according to our results, we have designed the improvement action plan.

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11. Measuring Customer Satisfaction

Most companies believe in great customer service, but few of them setup a system to ensure that they have provided it.
In order to deliver great customer service, you need to understand what your customers want and a way to see if they receive it. Customer survey with standard survey questions ensures that same information will be collected from all the customers. However, few of customers are interested in filling out the questionnaire; therefore you need to convince them that this is to find out "How we can serve you better" and this needs a lot of patience, power and persistence. Here are few possible dimensions can be measured in customer satisfaction survey; Quality of services, work on schedule, speed of the services, pricing, complaints or problems and clients perspective.
In Monenco, method of customer satisfaction has been implemented by reviewing the American Customer Satisfaction Index, EFQM Excellence Model, clients' survey results as well as thier recommendations as shown in below diagram. This method is based on a questionnaire including 10 direct questions in terms of quality of services and the project team also financial and time objectives.
Accordingly, necessary correction or preventing actions will be taken.

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Reader Support

If more information is required about the topics, easily indicate the number of the title in the following table and send it to the address below or info@monenco.com.

1	2	3	4	5	6	7	8	9	10	11

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