

Indoor Air Quality to improve living standards



United Arab Emirates



Enova by Veolia

Enova, the regional leader in energy and multi-technical services, was established in 2002 as a Joint Venture between Majid Al Futtaim – the leading shopping malls, communities, retail and leisure pioneer across the Middle East, Africa and Asia, and Veolia – the global leader in optimized resource management, designing and providing water, waste, and energy management solutions. Since its foundation, Enova has always leveraged best practices developed worldwide, rooting them in the specific context of the region, to deliver operational excellence to a wide portfolio of customers.

The challenge

Poor Indoor Air Quality (IAQ) can cause a number of health problems, ranging from headaches and fatigue to more serious conditions such as respiratory and heart diseases, or even cancer. For people living in the Middle East and North Africa region, who spend up to 90% of their daily time indoors, Indoor Air Quality is an essential aspect of their daily comfort and health, but also their efficiency at the workplace.

Enova's solution

Indoor Air Quality monitoring

Enova has developed a cost-effective, integrated approach to maintain a healthy indoor environment:



1. We conduct an **in-depth air quality audit** of the Client's facilities, looking at parameters such as temperature, humidity, carbon monoxide, ozone, carbon dioxide, formaldehyde, Volatile Organic Compounds (VOCs), Particular Matter (PM), bacteria and fungi.

Commercial Use ONLY

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Created by:
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Current contract: ●

HSE & CSR

All HSE & CSR issues are dealt with as a matter of priority. The company is accredited with the international standards (Quality Management, Environmental, Health & Safety, Energy, and Asset management) and has also been awarded the Corporate Social Responsibility (CSR) Label five years in a row. Enova was the first Energy Services Company (ESCO) accredited in the region.



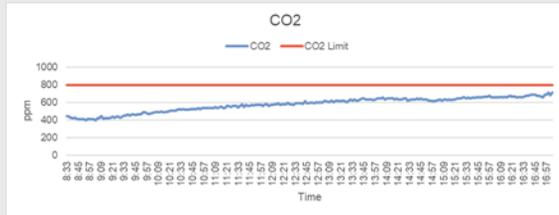
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- Enova delivers a detailed **Indoor Air Quality Report** to the Client, presenting the audit's findings, their root cause analysis, as well as our recommendations for effectively improving air quality within the buildings. Our report is formulated so it can be interpreted easily by non-technical members of personnel, as shown below:



Acceptable Limit Max	800	Sources	Health Effects
Min	400	- Natural sources include decomposition and respiration	- Exposure to lower concentrations of CO ₂ can cause dizziness, headache, sweating, fatigue, numbness, nausea and depression
Max	714	- Human sources include activities like cement production, deforestation and burning of coal, oil and natural gas	- Excess CO ₂ exposure can cause convulsions, unconsciousness and ultimately death
Average	577		

- Based on the recommendations made to the Client, Enova builds and proposes a **tailored action plan** to reach an optimal Indoor Air Quality.
- Enova implements **air treatment solutions** adapted to the Client's context and indoor environment, to achieve a sustainable indoor environment and ensure greater comfort for end-users and guests.
- Once the solutions have been enforced, Enova will conduct a second audit to **measure and verify** their positive impact.
- By installing smart sensors and connecting the Client's facilities to Hubgrade, our Smart Monitoring Centre, Enova is capable of **monitoring Indoor Air Quality in real-time**. This allows us to detect any discrepancy and correct it early on, thus ensuring lasting comfort for people in the building.

The benefits

- Greater occupant comfort
- Improved health and well-being
- Enhanced productivity of employees
- Sustainable work and living environment