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Sustainable Investment Decision

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Abstract: *Construction practices in Mexico, as in all emerging countries have been disorderly, must change and are changing because we can no longer build in the same way as a few months or years ago, today it is essential to take into account the SUSTAINABILITY OR SUSTAINABILITY since today we must establish the following:*

- *General site Analysis.*
- *Bioclimatic Study*
- *Universal Accessibility*
- *Building certifications*
- *Architectural Project*
- *Soil Mechanics*
- *Topography*
- *Design and Structural Calculation*
- *Hydraulic, Engineering*
- *Electrical, High, Medium and Low Voltage Engineering*
- *Renewable Energies Photovoltaic panels and solar energy etc.*
- *Budgets (Concepts catalogs, unit quantities and prices)*

All of the above, aligned and argued in the NORMATIVITY, both Mexican and International, for the responsible use of resources, to reduce the emission of CO2 greenhouse gases into the atmosphere, in addition to the optimization of energy consumption and the development of effective technologies and processes that allow generating energy savings.

Therefore, the management of complete comprehensive designs must be generated with a qualified team, from the concept of the solution, to the detailed Engineering, installation and online monitoring.

In this way we will contribute by reducing the emission of CO2 greenhouse gases and we will be taking care of the environment, and we will generate significant savings in electricity consumption and save money.

With the above, in the EVALUATION OF INVESTMENT PROJECTS, there will be a correct SUSTAINABLE INVESTMENT DECISION.

This article specifies a sustainable project for the decision of investors with these necessary characteristics that must exist today for Financial Decision Making with the benefits they represent today and especially for the future of our generations.

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I. Introduction

INTERNATIONAL CONTEXT.

People spend 80% of our time inside buildings, whether at home, office, shopping centers, universities, hotels, hospitals, etc. These buildings are the most intensely consume energy, are responsible for 50% of the energy used, therefore: the construction industry becomes one of those responsible and causing pollution to the atmosphere, as estimated each M2 square meter building constructed spent about nearly three tons of materials, of which some of them are not recommended for health components to the produce, now it requires that its components to produce building materials have less impact environmental and do not contain toxic or hazardous elements therefore it is essential that,

Building construction and any infrastructure or superstructure, pollutes the planet 50% level, since making an assessment of ENVIRONMENTAL IMPACTS "has come to conclude it.

The construction industry has been taking steps to respect, worldwide, to reduce negative impacts, or failing that at least diminish.

Internationally countries have stood out for its high commitment to respect are:

Denmark, Germany, France, Europe in general and Japan among others, they are part of the OECD (Organization for Economic Cooperation and Development).

The recent rise in prices Oil affects our daily lives, of course, but who decide that increase or decrease the prices of gasoline, natural gas and electricity ?, let's review what have been the causes of today think of producing energy not only with oil,

History in the seventies beginning the first crisis of petroleum, in August 1973 by decision of the OPEC (Organization of Arab Countries Petroleum Exporting) not to export more oil to countries that had supported Israel during the Yom Kippur War that Israel faced with Syria and Egypt. This measure included the United States and its allies in Western Europe.

This caused a strong inflationary effect and reduced economic activity in the affected countries, as well as a shortage of crude, the answer to this was that a number of permanent measures were taken to curb dependence, and rationalize consumption

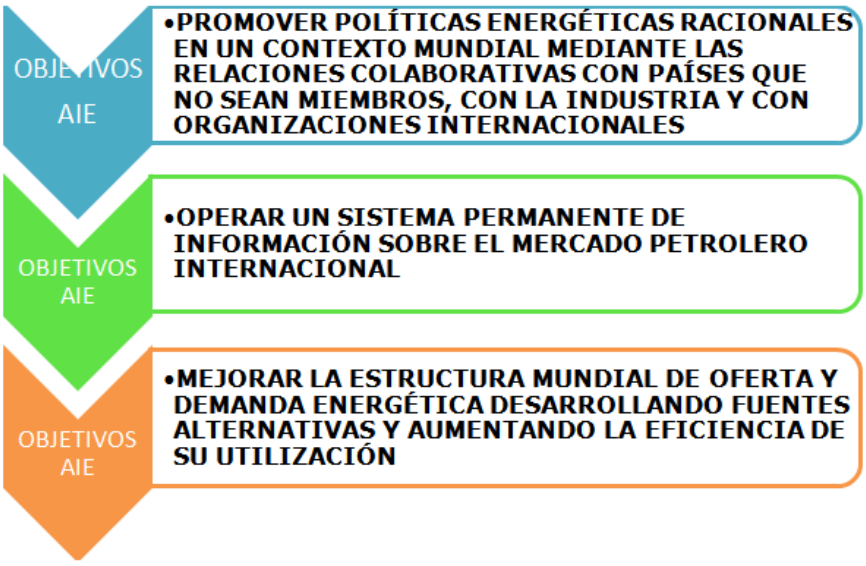
Here arises International Energy Agency

Within the framework of the OECD in 1974 to establish an international energy program within Integral Energy Cooperation Program in member countries.

The main objective at that time was, maintain and improve systems that enable addressing Interruptions supply oil.

Source: Dr. Maria Rocio Mendez Mercado.
Source: Photo: INTERNATIONAL ENERGY AGENCY
https://www.google.com.mx/search?q=imagenes+de+la+Agencia+internacional+de+energia&oq=imagenes+de+&aqs=chrome.1.69i57j69i59.5746j0j7&sourceid=chrome&ie=UTF-8

OBJECTIVES OF THE INTERNATIONAL ENERGY AGENCY



Source: Dra. Maria de El Rocío Méndez Mercado (Manual IEA)

This is a objective of which in my opinion it is very important for this issue before us today.

Source: Dra. Maria de El Rocío Méndez Mercado (Manual IEA)

The objectives of the European Union: The countries of the European Union, although different, have common goals with respect to energy efficiency

- ✓ **Competitividad** Reducir la factura energética que pagan los hogares y las empresas.
- ✓ **Seguridad del Abastecimiento**. Garantizar un suministro de energía fiable e ininterrumpida
- ✓ **Sostenibilidad** Limitar el impacto medioambiental de la producción de energía, el transporte y su utilización

This before writing is to tell them: the AEI comes first to ensure the supply of fossil fuels, but then to decrease consumption and add other alternative energies cleaner that is clean and renewable thus meeting the different Agendas in which they pledged to reduce GLOBAL wARMING AND GREENHOUSE GASES.

National content

In Mexico we are part of the OECD and thus the AEI for and therefore we are obliged to also decrease Global warming and the greenhouse gases, and as I mentioned at the beginning the construction industry pollutes; and therefore we must reduce negative environmental impacts, then one of the answers has to do that we must address is the normative aspect that emerged respect depending on the type of construction project or run.

on Energy Efficiency in Mexico was launched FEDERAL LAW Standards and Metrology (LFMN), according to its enforcement regime two types of standards: mandatory and,

- ✓ Mexican Official Standards (NOM) mandatory and NOM NOM 008 AND 020
- ✓ Mexican Standards (NMX) voluntary. (CONUEE) National Commission for the efficient use of energy NMX 164

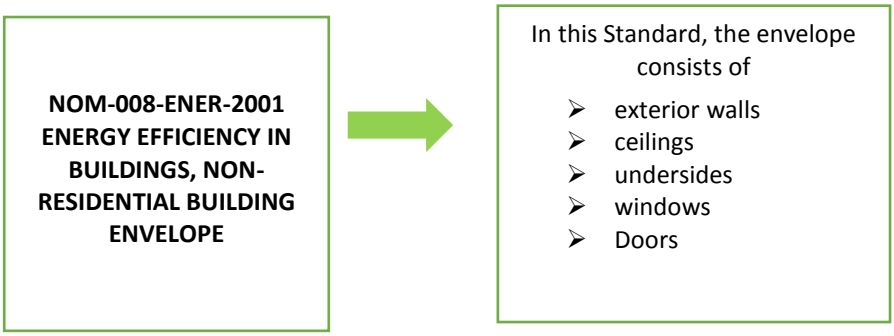
NOM aim, establish the characteristics and / or specifications, standards and procedures to protect and promote the improvement of the environment and ecosystems, as well as the preservation of natural resources.

NOM that was used to review the Executive Project is the NOM 008 for being a building nonresidential because they are a pair (2) buildings to house 500 high school students since the NOM 020 is for buildings Habitacionales houses, apartments.

We follow the methodology NOM 008 and submitted it to the test Energy Budget:

Quick Guide description and CONUEE Calculation Tool:

In order to support compliance with NOM-008-ENER-2001, the Energy Secretariat (SENER) and the Commission National for the Efficient Use of Energy (CONUEE), with support and technical advice AGENCY DANISH ENERGY they have developed a calculation tool, easy to use, with which developers, architects, consultants, and project managers, they can quickly check their compliance with the Official Standard projects. This tool allows the user to calculate the energy budget of the building and the building projected reference, entering only the data of the thermal envelope of the projected building.



And the result for our Executive Project: Step test bioclimatic study.
View another file
Therefore, he continued, with the Sustainable Project Executive,
But that, ¿has an Executive Project ???

- Environmental Impact Assessment
- general analysis of the site.
- bioclimatic study.
- Universal accessibility
- Certifications buildings
- Architectural project
- Soil mechanics
- Topography
- Structural design and calculation
- Hydraulic, Sanitary and Storm
- Electrical Engineering, High, Medium and Low Voltage
- Gas Engineering
- Engineering data, voice and sound
- Renewable energy and solar photovoltaic panels etc.
- Budgets (catalogs concepts, quantities, units and unit prices)
- Work schedule (Project, critical path)
- Competition
- Failure
- Work award
- Contract
- bonds
- Start of work

SUSTAINABLE INVESTMENT DECISION.
View another Excel file.

Calcular el Valor Presente Neto y la Tasa Interna de Retorno considerando los siguientes flujos en un horizonte de tiempo de 15 años.									
T=	0.12	0.12							
I.I	0					DIAGRAMA DE FLUJO, HORIZONTE DE TIEMPO			
INGRESOS	-	AÑO 1	EGRESOS	415,000.00			2560000	58000000	
	2,560,000.00	AÑO 2		2,085,000.00		0			
	58,000,000.00	AÑO 3		51,800,700.00					
					T=12%	0	1	2	3
						415000	2085000	51800700	
	T=	0.12	0.12						
	0	0	0						
	1	-	-	415,000.00	- 370,535.71				
	2	2,560,000.00	2,040,816.33	2,085,000.00	- 1,662,149.23				
	3	58,000,000.00	41,283,254.37	51,800,700.00	- 36,870,715.08				
			43,324,070.70		- 38,903,400.03				
					$4,420,670.67				
					RENTABLE				

TAXES
CALCULATING ISR
Based on Article 34 Section XII and XIII of the Law on Income Tax

	OBRA CIVIL							
	PRELIMINARES					2,589,560.00		
	TERRACERIAS Y MOVIMIENTOS DE TIERRAS					425,350.00		
	CIMENTACIONES					10,500,000.00		
	ESTRUCTURA					14,856,352.00		
	ALBAÑILERIA					8,456,250.00		
	IMPORTE DE OBRA CIVIL					36,827,512.00	5%	DEDUCIBLE
	INSTALACIONES Y EQUIPOS SUSTENTABLES					18,822,488.00	100%	DEDUCIBLE

ADDITIONAL NOTES:
viva voce

A government that promotes efficient energy consumption in its operations and among its population, is a strategic niche for energy efficient goods and services that can influence markets and society.

Some of the benefits of applying energy efficiency in local governments are:

- ✓ Increase the value of assets in energy efficient buildings,
- ✓ Increase reliability in power supply systems,
- ✓ Contribute to reducing greenhouse gas emissions,
- ✓ Demonstrate leadership,
- ✓ Promote economic development of local and regional communities,
- ✓ Promote energy-efficient product markets,
- ✓ Promote sustainable alternatives to conventional practices,
- ✓ Provide health benefits and productivity
- ✓ Reduce maintenance costs in energy efficient buildings,
- ✓ Reduce the burden on utilities, energy consumption and,
- ✓ Reduce the impact of energy costs in finance and municipalities

II. Conclusions

- ✓ La edificación sustentable no es una moda internacional efímera, sino una política pública estratégica para lograr las metas de prosperidad que postula el desarrollo nacional.
- ✓ Es una respuesta a una nueva Política ambiental orientada al crecimiento verde que busca facilitar la armonización de los imperativos económicos con los socio-ambientales.
- ✓ Es una actividad económica generadora de empleos.
- ✓ Es un nicho para abrir nuevas oportunidades de inversión.
- ✓ Los desarrolladores de vivienda y edificaciones no habitacionales tendrán beneficios al estar certificadas sus construcciones, tanto de prestigio como financieros.

LA SUSTENTABILIDAD BUSCA ASEGURAR LA RENTABILIDAD DE LA INVERSIÓN EN EL LARGO PLAZO PARA TODOS

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