

# Building Process Management In Green Public Procurement

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## ABSTRACT

Today more than ever, the world of Public Procurement is regulated by a large and diverse body of law, constantly updated and enriched. The environmental issue is one of the subjects that is gaining more and more on the international level and so the new regulations of Procurement must consider it in its articles. The process, therefore, must meet the requirements of convenience, considering both time and costs, but also the quality of supply, which will be evaluated both on the basis of the design proposals (traditional requirements) and on the convenience of its life cycle (current requirements, LCC and LCA). The forecast period of each tender will be no more evaluated from the moment ("now" - the day of submission of the tender) but to the future ("then" - the ordinary value of the subject of the contract). The present study aims to determine the state of the art of the existing regulations and the current procedures for the award of public supply, to highlight what are the (new) criteria and the critical issues that follow their implementation; the goal is to determine whether the management of procurement actions, as we face today, is appropriate or not to the "green" needs and, if not, what new ways may configure.

**Keywords -**

**Green Public Procurement; Building process; Building Life Cycle**

## 1 Introduction

Despite the actual crisis and the bendings of the markets, Public Procurement continues to maintain consistent dimensions and to move huge economic resources involving various sectors of market.

The environmental matter cannot remain out of the variables considered in such circle and more and more we are pushed to a "green" approach also in this sector.

At the beginning, the European Directives aimed to guarantee the general principles of free competition,

impartiality in treatment, not discrimination and transparency [1], but today the further aim is to improve and modernize the draft legislative acts to come to a more balanced politic, that can sustain with great success supply and demand, giving suitable and respectful services for the Environment and in the meantime being also socially responsible and innovative.

So, the Operators involved in Public Procurements and in the whole productive cycle will be certainly called to upgrade themselves and for a professional and technological modernization, because, with the development of the Green Public Procurement principles, the new requirements for the competition demanded by Public Administration will be more higher than the past.

## 2 Green rules in the world

The attention toward the environmental impacts produced by the world of the public procurement is set, to international level, already since the years '90.

In the United States, we have the institution of the green public contracts in 1993, thanks to the provision of the President W. J. denominated *Executive Order 12873- Federal acquisition, recycling, and waste prevention*, developed in 1998, with the directive "*Executive Order 13101 - Greening the Government through Waste Prevention, Recycling and Federal Acquisition*" [2].

These directives still result currently in activity and with them it is asked to all the federal states that have to whether to do with politics of purchase of supplies and services, to opt for supplies and services that are "environmentally preferable" choosing, if possible, "bio-based" products, with recognizable sustainable components.

We can find other examples of international attention toward the green procurement also in Japan, Australia, Korea of the South, China, Thailand and Philippines.

Unlike these cases, to European level, the community directives of the first years '90 showed a certain reluctance to introduce the green criteria inside

the laws, despite to world level, as we have seen, there was a progressive and increasing general attention for the environmental matter and for the concept of sustainable development. The community directives, therefore, limited only their attention to the phase of the tender award, to make sure that the classical principles of transparency and not discrimination were respected. This is what we can deduce by the Directives [3] n. 92/50/CEE (goods), n. 93/36/CEE (supplies) and the n. 93/37/CEE (works), where we can't find any interest for the environmental matter or sustainable aspects.

Few years later, something begins to change and in 1996 the *Green Book* is emanated (COM (96)583), that represents the first Community Document in which we can see the integration of the politics of the free market with the environmental politics, in matter of public procurement.

The real turning point is represented by the *Amsterdam Treaty* [4], of the 1997. This document is fundamental in the history of the green procurement, because with it we have the imposition for the community organisms to consider the environmental aspects and to integrate them inside all the other policies they follow [5].

And from this moment in then we have the development of the politics of the green procurement, representing constant object of national and international debate, giving origin to a series of organizational strategies of the various Countries, for the inclusion of the environmental aspects inside the economic policies.

The European directive 2004/18/CE (March 31st 2004) is very important and we can say that it's related to the "coordination of the procedures of tender award of supplies, services and works"; it recognizes the possibility to insert the environmental aspects as criteria which throw we can evaluate the offer.

From this moment, every state member has moved its own footsteps to conform to the community prescriptions with very significative progress.

The same European Commission has furnished, in the years, different editions of a manual on the green public procurement, that represents a valid tool of support to the Public Administrations.

### 3 Regulatory Energy frame work

The foundations on which the evolution of the green contracts leans are surely represented by the world attention, more and more increasing, towards the two great themes of environment and energy that, in the optics of safeguard of the Planet, it shapes him as among the principal protagonists of the actual, national and international politics.

Among the actions set to improve the European

energetic situation, the principal reference it is the initiative "20-20-20", defined in the 2007 Suggestion, that foresees from the UE the attainment of the objective followings within the 2020:

- 1) to reduce the effect gas shuts of 20%;
- 2) to reduce the 20% energetic consumptions through an increase of the energetic efficiency;
- 3) to satisfy 20% of the energetic requirement through the use of the renewable energies.

The conclusions of the European Suggestion of February 4th 2011 have recognized that the objective of energetic efficiency of the union is not at the street of realization and that further interventions are necessary finalized to the energetic saving in the sectors of the house building, of the transports, of the products and of the processes of production. To set remedy to such situation the plan of energetic efficiency 2011 has pointed out a series of politics and measures of energetic efficiency that interest:

- 1) the production, the transmission and the distribution of the energy;
- 2) the role drives some public sector within the energetic efficiency;
- 3) the buildings and the equipments;
- 4) the industry;
- 5) the necessity to allow the final clients to manage its own energetic consumptions.

March 8th 2011, the Committee has adopted "A chart of march toward a competitive economy to low issues of carbon in 2050", in which signalled the necessity to assemble the efforts on the energetic efficiency.

In this circle, it is necessary to postpone the normative picture of the union related to the energetic efficiency. To reach this aim they have emanated the directive 2012/27/UE (which changes the directives 2009/125/CE and 2010/30/UE and it repeals the directives 2004/8/CE and 2006/32/CE) and the Directive 2010/31/UE on the energetic performance in the house building (it replaces the 2002/91/CE).

Particularly, as it regards the energetic adjustment of the existing public buildings, the directive 2012/27/UE put in evidence some fundamental aspects:

- The immovable properties represent the 40% of the final consumption of energy of the union, therefore States members should set for a long time a strategy term beyond 2020 to stop the investments in the restructuring of residential and commercial buildings with the purpose to improve the energetic performance of the real estate park.
- The buildings of ownership of the public corporate body represent a considerable part of the real estate park and they enjoy of notable visibility in the public life. It is therefore

opportune to fix an annual rate of restructuring for the buildings of ownership of the central government in the territory of a State member so that to improve its energetic performance. Besides, the diminution of the energy consumption measures grants that allow to improve the energetic efficiency and free public resources to destine to other ends.

Accordingly the objective followings are set:

- 1) To start a review of the park real estate public.
- 2) To individualize approaches to the effective restructurings in terms of costs, pertinent to the type of building and to the climatic zone.
- 3) To start politics and measures directed to stimulate restructurings of the buildings lavishes and effective in terms of cost-benefits.
- 4) To esteem the attended energetic saving and the consequential benefits.
- 5) From January 1st 2014, to restructure every year 3% of the surface covered useful total of the heated buildings e/o cooled of public ownership with the purpose to respect at least the least requisite of energetic performance.

As it regards the performances of the buildings, the Directive 2010/31/UE, in the optics to avoid the imposition of onerous requisite and to promote in effective way the diffusion of the energetic efficiency, will be necessary to define least requisite of energetic output for all the buildings in such way that reaches an "operation optimal level of the costs" intending the level of energetic performance that behaves the lowest cost during the economic cycle of life esteemed for a building but also for a single building component. The lowest cost is determined keeping in mind of the tied up costs of investment to the energy some costs of maintenance and the possible costs of disposal.

Another remarkable aspect introduced by the new directive is the concept of "energy building almost zero": a building in which, thanks to the elevated level of energetic efficiency, the annual general consumption of primary energy is satisfied in very meaningful measure from energy from renewable sources, inclusive that produced on the spot.

Particularly, States members provide so that beginning from December 31st 2018 the buildings of new construction occupied from public corporate body and of ownership of these last ones are almost energy buildings zero.

## 4 Green rules in Italy

In Italy, the Green Public Procurement is not obligatory, but different norms exist and they request the adoption of it, establishing some specific requisite for the chose of specific products or services.

But still long it is the road to cross.

Today, the main normative tools of reference for the public procurement are represented by the Code of the Contracts (D.Lgs. 163/2006 and ss.mm.ii.) and from its Rule of realization (D.P.R. 207/2010 and ss.mm.ii.).

In them, any obligation of insertion doesn't prescribe him, but he leaves the possibility to all the Stations to effect choices that keep in mind of the relapses on the social and environmental aspects. As we said, in Italy we have a "Plain of action for the sustainability of the consumptions in the sector of the Public Administration (PAN GPP)" from 2008, following which a system of monitoring of the green procurement has been founded and managed by the Authority of Vigilance on the Public Contracts, ex AVCP and called today National Authority Anticorrosion, ANAC [7].

This Plan of action defines the minimal environmental criteria (CAM) that the Stations Contracting must foresee in the proclamations of competition to be able to realize green contracts assembling them on the definition of the 5 fundamental points: object of the contract, specific techniques (defined, if possible, "so that to keep in mind... of the environmental guardianship" [7]), of share, criteria of evaluation of the tenders (in case of award with the criteria of the more economically advantageous tender it imposes to the stations, contracting to foresee a least score of 65 points for the "environmental characteristics"[8]), conditions of execution of the contract (it imposes to the stations contracting to define the content of the specifications and the contracts holding in consideration the criteria in matter of environment treated in the Plan of action (PAN GPP) [9]).

## 5 Thinking green

### 5.1 Retrofitting the existent

We can say that for the Public Procurement related to not yet existing buildings [10] we have available many rules and parameters that drive us toward a more effective planning, but we cannot say the same for the Public Procurement related to existing buildings [11].

In this particular case, we are speaking about public existing buildings, because in our Country they are very consistent and we have to give particular attention to all of them, that still are used as offices and representative institutional places, but certainly they can't give very efficient energy performances; that's why we have to evaluate what kind of energy performances this buildings give us today and how we can improve them, looking for the best solution for getting much more high energy performances after the action [12].

So, the public properties must be considered in order

to maintain their important part in the contemporary set of public existing buildings that we still need and we still want to use. That is why today energy retraining appears as the main item on which we have to focus on and it must be considered for the public plans of future actions, because in this way we could get sure benefits from the environmental and energetic point of view (our priority), but also from the social and economic one. In fact, improving traditional energy production systems with new ones appears today as the best way to obtain good results in energy sector and also it represents a good example for community.

Furthermore, we have also to consider this aspects from the historical and cultural point of view, because our artistic heritage is very rich and many of our historical existing buildings entertain in their inside offices and public institutional activities, even if they are not able to guarantee efficient energy performances, because they were built with different technical systems, so various compared to the actual ones.

All of these considerations place very well inside the international context, where the debate around these themes is more and more ordinary.

In fact, today the attention for energy performances is more higher than the past, as well as the problem of emissions of greenhouse gases and of other pollutant emissions in the atmosphere and the consequential climate change mitigation. As well-known, this factors will give us negative consequences in middle and long terms and we have to control them and evaluate how we can reduce them for guarantee on our Planet a quality of life as best as possible.

It's since almost two decades that we daily listen people speaking about global warming, both from the main expert people and from the ordinary ones. As the history teaches us, at the beginning the theories about these matters were ignored, more or less consciously, while today the problem is universally recognized and we can appreciate that it is internationally discussed.

For these reasons, considering that the public existing "old" buildings represents a very huge set of actions, we must consider the environmental consequences of their use and energy low-performances as the initial point of our planning activity, to try to adopt a green approach to the problem, to find efficient solutions available since now and during the whole buildings life to allow them to give us energy high-performances.

## 5.2 Designing new

Today the contract results still to be a great deal a trial complex and articulated. In fact, there are a lot of variables to be taken in consideration and the project introduces him with a certain degree of definition since the first phases of its conception.

The attention to the social and environmental matters is present more and more, to level of intents, while it is sometimes appearing a little concretized by the operational point of view.

The green contracts is spreading on the whole national territory, but in a not uniform way.

Today it almost seems that the possible typologies of contract are two: the "old style" contracts and the green contracts. Instead, what seems logical and desirable it is that the green colour permeates the contracts in their totality, so that the green approach becomes custom and not exception.

In Italy, we have some stations contracting that appear already ahead in the run of application of these principles, above all thanks to the collaboration and the aggregation in more complex (as for instance *GPPnet*, one of the main nets in Italy [13]) structures through which we can experiment indeed and to have the opportunity to verify the concreteness of the results.

The green approach in case of new constructions will stir then on two foreheads: from a side, the attention toward the most advanced technologies and the adoption of constructive strategies to energy almost zero, as we have seen before, and, from the other side, we will see how the attention will grow toward the costs of management and maintenance of the buildings themselves, that it will represent the true challenge of the future more and more.

## 6 Conclusions

In Italy, as in the rest of the world, the attention toward the environment and the effects of the building processes are in the center of the attention more and more. The demand we have is about taller performances from buildings more and more, without forgetting however the safeguard of the environment that surrounds us.

The introduction of the green criteria in the procedures of competition represents ahead surely a notable footstep toward the matter of the energetic saving, but until the more advantageous economically tender will be appraised on the base of the constructive technology and not on the whole cycle of life of the same work, we won't be able certain to consider us satisfied.

What we would like to reach, therefore, is that the evaluation of LCC and LCA becomes contemporary and considered of peer value, because only in this way we will have a more detailed picture about the work that we will realize.

Both that interventions of constructions *ex novo* both of interventions of retrofitting, in fact, the management and the preservation of the work will be one of the fundamental components to appraise the effects on the environment. It's from here that we feel

the necessity to insert these evaluations in phase of competition, to see if the tender is really rewarded the most advantageous and not only under the economic profile.

The present study foresees to investigate in national circle around the insertion of environmental criteriaas by to guarantee in the award of jobs, to try to trace a state of the art on their application and to draw the first budgets. Till now it is sure that they are few the cases of global application and indeed meaningful of “contract green”, in circle of works, but the study contemplates really to show the situations in which they don’t find application and in which could be inserted instead, trying to furnish sprouts and examples for the future proclamations.

In fact, if for the supplies and the services, something he is already moving for a long time in the correct direction, for the world of the contracts of the works the road is still long and nearly unexplored.

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