CombinES
Combining energy services with subsidy schemes to finance energy efficiency in Central Europe

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Katowice, Maj 2013

CombinES Project
Central Europe Program/4CE499P3

National Report WP3
OVERVIEW OF THE EXISTING SUBSIDY SCHEMES & SUBSIDISED EPC PROJECTS

CombinES
This project is implemented through the CENTRAL EUROPE Programme co-financed by the ERDF.
CENTRAL EUROPE COOPERATING FOR SUCCESS. EUROPEAN UNION EUROPEAN REGIONAL DEVELOPMENT FUND

This document has been conducted within the framework of the European Union project "CombinES" supported by the program Central Europe programme.

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ABBREVIATIONS

DGC	Dynamic Generation Cost
EE	energy efficiency
ESM	energy saving measures
EPC	energy performance contracting
ESCO	energy service company
IPMVP	international performance measurement and verification protocol
IRR	internal rate of return
M&V	measurement and verification
NPV	net present value
O&M	operations and maintenance
PBP	payback period
RES	renewable energy sources
NFOS	National Fund for Environment Protection and Water Management
GIS	Green Investment Scheme
TF	Thermomodernisation Fund
OPI&E	Operational Programme “Infrastructure and Environment”

EXECUTIVE SUMMARY

The The Report provides an overview of the existing and **planned** energy efficiency subsidy programmes on the national and regional level based on the data collected within Task 4.1.2 and the opinions of beneficiaries collected through questionnaires within Task 4.2.1 of the CombinES project.

Energy efficiency subsidy programme is defined in this report as both governmental and non-governmental programme or scheme providing co-financing of comprehensive preparation and implementation of the energy efficiency projects.

For energy saving projects in the Republic of Poland, the potential subsidy support is available from the programmes administered mainly by the National Fund for Environment Protection and Water Management. At least two of the existing programme could be used for the combined financing of energy saving projects with the EPC method in the most attractive public sector:

- The Green Investment Scheme, providing ***funds thermal-modernization*** projects.
- The Operational Programme Infrastructure and Environment.

from which funds can be received to cover a significant portion of investment costs in selected energy-saving projects. It is possible to obtain financial funds from the programmes to cover a portion of the investment costs for a select group of measures for the building (e.g. insulation energy management and technical measures regarding the energy source), while another set of measures e.g. energy management and technical measures may be financed by the EPC method.

The information has been gathered on few EPC -energy efficiency projects recently implemented or just being implemented in the Republic of Poland. The formula of PPP (public-private partnership) was applied. First EPC project (Radzionków) was implemented in 2010 and did not use any support from European funds but demonstrated the new model of the Public Private Partnership. This successful case study has been followed by another EPC project conducted under a PPP framework, which used public funds such as NFOSiGW or GIS-1 (Karczew). In those cases the beneficiaries are entities of the public sector (municipality – community) and the subsidies have been used to finance *partially* the ESM, while the EPC been treated as a vehicle to guarantee financing all technical energy-efficiency measures and on-going energy and operation management. The guarantees of performance issued have had a major role in the decision making process as well as the PPP implementation which should enable to overcome the future problems related to public debt issues.

The rapid growth of interest of combined PPP and EPC solutions for implementing energy efficiency projects and first examples of combining available subsidies and EPC shows that this is a very promising way for realizing the highest share of the existing energy efficiency potential from the limited public funds.

Priority, should be given to the measures on the demand side increasing the energy efficiency of the buildings and improving envelope of the facilities, which would not be performed for years unless subsidy or other form of long time support is obtained. Those

actions should be performed together with the energy management and be followed by the technical measures improving energy efficiency on the supply side. Such measures are very suitable for implementation by EPC method, which simultaneously secure the financing and provide guarantees of a proper and efficient operation of the technical equipment.

In Poland „ESCO formula" as an idea is very trendy and wide spreading. Usually for the implementation of EPC a PPP agreement is negotiated and prepared (several new public procurements has been announced). It takes a lot of time (even more than a year) but the public partner:

- can independently apply and receive a subsidy and,
- may use the *ESA95 manual on government deficit and debt* provisions to exclude its liabilities related to an EPC agreement from the public debt.

The term of office lasts four years, the EPC agreements are usually concluded for a longer period the decision makers sensitive to the political (election) cycles seeks justification like PPP to implement unusual measures. Energy services outsourcing like any performance contracting is still perceived as a brand new idea in the Polish public administration sector.

To allow for wider combinations of the new methods of financing the energy efficiency projects the general awareness and efforts in capacity building must be increased.

1. EPC PROJECT POTENTIAL FOR COMBINATION WITH SUBSIDIES (TASK 4.4.1)

The EPC potential in the Republic of Poland until 2020 has been estimated in the CombinES WP3 National Report for the Republic of Poland - Overview of the EPC potential and market.

When looking for the best conditions for co-financing of public subsidy schemes and EPC model, the focus has been addressed on the technologies and sectors with the highest economic potential and the maximum level of replicability. To use such combination effectively, the EPC should be used to finance measures with the relatively short payback period (up to 6 years), while the subsidies should be focused on the long-term measures with longer paybacks (especially thermal insulation of buildings). This means that focus should be given to buildings where both these potentials are available.

In general, all buildings constructed before 1982 - when the new building standards were established in the Republic of Poland – and which haven't been "thermo-modernized" provide a potential for EPC application. However, the substantial potential of energy savings needs to be confirmed by a more detailed analysis, such as with first walk through energy audit.

Currently, the majority of projects of thermo-modernization are being carried out in residential sector (multifamily houses) often based on modest support of the "Thermo-modernization Fund".

The most interested sector is the public one. The municipalities are the owners of most of the facilities and they have started to notice the importance of the energy costs in their budgets. In the hospitals, primary and secondary schools and kindergartens energy audits have been performed followed by different energy savings measures taken by municipalities, districts and regions. The most active units are seeking external sources of funds to finance "the complex thermo-modernization", for example through the Green Investment Scheme.

The need for the EPC solutions used to be weak as the eco-results, energy saved and emission avoided calculations were made on the basis of ex ante analysis or the support level often exceeded 50% or even achieve 80% threshold. The declaration of shifting the support schemes towards the low interest bearing loans, the growing diffusion of PPP solutions enabling "public debt free" financing of EPC projects with the lowest in history levels Polish interest rates creates the turn-point and cornerstone of an upward trend in development of EPC market.

A small share of EPC projects are implemented in the industry and tertiary sector. The precise data is unavailable due to professional secrecy. Some projects which were first conceived as EPC via a third party have been later converted into in-house interventions. However all of these sectors are expected to grow considering the implementation of EPC projects until 2020.

So far, the facilities under direct state control and the buildings managed by municipalities, districts and regions have not been re-qualified due to administrative and cultural barriers, thus representing a relevant undeveloped market.

The public funds should be spend according to the rules of public procurement.

In the Polish decentralized system of public procurement, every procuring party has the right to select goods and services which meet high standards of environment protection. So far the environmental criteria are quite rarely applied by Polish procuring parties (in approx. 10,5% in 2009 and 12% in 2011 of all procurements[3]) . Environment protection issues usually include technical, operational or functional parameters, e.g. the device's water consumption criterion. However, since no clear and unique definitions of evaluation criteria was available – thus resulting in ambiguities and unfair competition- the "National Action Plan for Green Public Procurement 2007-2009" has been adopted. The Action Plan included specific tools and indicators for monitoring changes in making the public procurements "greener".

The main objectives of actions to be implemented included:

- Increased attention paid to environmental issues in public procurement,
- development of the market of eco-friendly products and broadening of the market of technologies for the environment protection industry and environment protection-related services,
- promotion of sustainable production and consumption models.

Due to the closing of the above mentioned "National Action Plan for Green Public Procurement 2007-2009", in 2010 the Council of Ministers adopted a new 3-year planning concept aimed at the promotion of green public procurements in Poland. The "National Action Plan for Sustainable Public Procurements 2010-2012" prepared by the Public Procurement Office includes an analysis of EU and national legislation, both directly concerning green public procurements and indirectly related to the procurements. It also includes information on the actions performed so far, and a schedule for actions planned for the next years. The "New National Action Plan for Sustainable Public Procurements 2013-2015" has not been approved yet.

Due to public interest and the need to improve the quality of life and the condition of the environment, it is desirable and justified that public procurements take into account, as much as possible, the environmental aspects. Actions undertaken in this respect should involve in particular the support for energy-, water-, and resource-efficient solutions, which to a large extent are also cost effective. Hence, due to their short- and long-term economic benefits, they may be attractive for the procuring parties. Together with the Public Procurement Office, the Ministry of Economy has created and updates the www.zielonezamowienia.gov.pl website where one may find environmental criteria for selected product groups.

It is intended that the implementation of public tasks with EPC **(in the ESCO formula)** will be facilitated by changes to the provisions concerning the detailed manner of classification of debt instruments considered as public debt. The changes will apply to agreements related to financing services, supplies and construction works in the scope in which the repayment is made from financially guaranteed energy savings. The provision will constitute an additional incentive for local government units to carry out investments reducing current expenditure. Since these measures are still pending, at present date PPP formula is the best solution available.

Despite the strong political will to find the way to make **the ESCO formula** popular or to introduce analysis of calculations related to the costs within life cycle of a given measure, the public institutions prefer to use the open tender procedures and to set the simplest possible criteria of choice such as the costs of initial investments. Since 2010 a new solution has been introduced into the Polish Public Procurement Law – namely "**competitive dialog"**.

This new tool will allow to compare different solutions taking into account different criteria and thus overcoming the traditional choice based only on the initial costs of investments. This is creating completely new opportunities for the ESCO but still all depends on the will and readiness of the public officers to implement the more advanced and complex way of allocating the funds.

2. OVERVIEW OF THE SUBSIDY PROGRAMMES (TASKS 4.1.2 AND 4.2.1)

Energy efficiency subsidy programme is defined in this report as both governmental and non-governmental programme or scheme providing co-financing of comprehensive preparation and implementation of the energy efficiency projects.

For energy saving projects in the Republic of Poland, the potential subsidy support is available from the programmes administered by the Ministry of Economy and the Ministry for Environment Protection as well as the special institution National Fund for Environment Protection and Water Management (further NFOS). The National Fund runs independent finances, pursuant to Act of the Environmental Protection Law. By executing the rule "polluter" pays" the NFOS collets most funds from: fees, and fines for exploitation of environment, mining fees and concession fees, payments resulting from the Energy Law, revenues from sales of assigned amount units of CO2 and other sources.

Currently, no direct investment support to ESCOs from European Funds for implementing of comprehensive EPC projects is available in the Republic of Poland. The rules established at be beginning of the Programming Period for years 2007-2013 favoring the direct support for potential ESCOs' clients e.g. municipalities, districts, state (community)- owned enterprises effectively pushed the ESCO companies out of the market. Relatively easy available "cost free" sources have attracted the most environment oriented subjects. Those "interested in new ideas" ready to take risks related with EPC (called also "an ESCO formula") started to search for risk free funding and either found interesting programme fitting their needs or they wrote completely new applications thereby EPC projects were postponed "for the worse times to come". Secondly – the guarantees of performance issued by ESCO's became needless, redundant or even were called an unwanted costs creating factor therefore ESCOs' decided to reduce their offer to those services the market was ready to accept.

Currently 3 of the existing programmes could be used for the combined financing of energy saving projects with the EPC method:

- The Operational Programme Infrastructure & Environment with 16ROPs from which funds could be received to cover a very significant part of investment costs in comprehensive energy-saving projects. It used to be possible to obtain financial funds for almost all types of EE measures (e.g. insulation, technical measures regarding the energy source); just energy management and walls painting could not be financed.
- GIS-1,-5 the successors of OPI&E with differently designed support scheme and subsidy levels presented its ability to combine with EPC.

The **Operational Programme "Infrastructure and Environment" (OPI&E 2007-2013) was created** through the collaboration of the 5 Polish Ministries and with the European Commission. They created a program with the general focus of protecting

and improving the quality of the environment. In particular, the part of the programme which would be most suitable for EPC is currently maintained by the **National Fund for Environment Protection and Water Management.** So far, the programme has not been used for co-financing with EPC.

The **Green Savings Programme**, issued by the Ministry of Environment Protection in collaboration with the **National Fund for Environment Protection and Water Management**. between 2010-2015 was determined for co-financing of thermal-modernization of public buildings. The programme has been recently used for co-financing with EPC.

Currently, the conditions of the EEA Programme Energy efficiency and the promotion of renewable energy sources are under preparation and are expected to give a possibility for combined financing with EPC in the public sector.

Currently, no direct investment support for application of EPC projects is available in the Republic of Poland

2.1.1 Thermomodernisation Fund (TF)

Thermomodernisation Fund (TF) is the oldest in Poland national state subsidy scheme supporting energy requalification of buildings. The scheme - introduced with the Act of 18 December 1998 (Journal of Laws No 162, item 1121, as amended) - allowed for financing comprehensive energy requalification of buildings, leading to energy consumption reductions and thus to decreasing expenses for space heating, water heating, ventilation, air- conditioning and cooling.

A new act of law entered into force on 19 March 2009 – the Act of 21 November 2008 on the support for thermal-modernization and repairs (Journal of Laws No 223, item 1459, as amended)- replacing the previous provisions of the above mentioned Act, which since 2009 had been the basis for investments for thermal-modernization of buildings with state support. The new Act introduced new rules to give financial support to ESM and refurbishments.

In brief : New shape of TF was established in 2009 and as this is a systemic measure – the Act does not provide a definite time framework for the programme. The expected savings by the end **of 2016 are about 8,1 TWh**. [2]

Scope

Beneficiaries: Owners of multi-dwelling units, owners and administrators of all other housing facilities, and local government units with the exception of local government budgetary enterprises. Under the Act they may in fact possible to obtain 3 different types of bonuses: thermal-modernization, repair, and compensation bonus

Thermal-modernization bonus aims at:

- decreasing the consumption of energy for heating and water heating purposes in housing units, multi-dwelling units, and facilities owned or used by local government,
- decreasing the cost of supplying heat to the buildings – as a result of centralization of the heating plant,
- decreasing primary energy losses in local heating grids and local heat sources,
- a complete or partial change of energy sources to renewable sources, or using high-efficiency cogeneration – with the obligation to achieve energy savings defined in the Act.

Repairs bonus consists in:

- refurbishing a multi-dwelling unit,
- substituting windows, or repairing balconies in multi-dwelling units, even if they are used exclusively by the dwelling's owners,
- alterations of multi-dwelling units, resulting in improvements, equipping multi-dwelling units with installations and devices required for buildings approved for housing according to technical and construction regulations

Compensation bonus applies to buildings with "council" flats

- repairing a multi-dwelling unit.

Selection Process

The principle of obtaining funds requires preparing an energy audit for a building, local heat source or a local heating grid, including the methodology for detailed calculations which provide the means to choose the best possible option generating the largest reductions of expenses, as compared to annual energy savings and financial expenses necessary to complete the intended work. The key criteria of evaluation is the PBP, taking into account minimum requirements for the given dimensions such as external walls, roofs, ceilings over basements, windows and doors included in the secondary legislation.

The minister competent for construction, spatial development and housing holds an open register of persons authorised to prepare energy performance certificates for buildings. Entry in the register may be granted to persons who have completed the training and passed the examination, or who completed at least one-year postgraduate studies in energy audit for thermal-modernization purposes organised by a department of architecture, construction, environment engineering, energy, or related, and who at the same time meet the requirements specified in Article 5(8)(1), (2), and (3) of the Act – Construction Law. As at 31 December 2010, the register of persons who had been awarded the right to prepare energy performance certificates for buildings after having passed the examination or after completing relevant postgraduate studies included 7 699 names.

In order to obtain a thermal-modernization bonus, the following procedure is followed:

- the investor carries out an energy audit to determine potential interventions, estimated costs and expected savings,
- the investor files a loan application in a commercial bank, together with an application for a thermal-modernization bonus,
- after the bonus is awarded, the investor draws up a construction plan and carry out the investment accordingly
- the crediting bank gives the loan,
- the crediting bank notifies BGK that the investment is completed and that a loan was given,
- BGK pays the thermal-modernization bonus.

The amount of the thermal-modernization bonus constitutes 20% of the amount of loan for the investment, but no more than 16% of expenses incurred for the investment, and twice the amount of expected annual energy savings. In the case of a repair investment, the investor is entitled to a bonus for paying back a part of the loan taken for the investment, which is called a repairs bonus; under the Act, awarding the bonus depends on achieving a specific energy savings effect (a decrease in annual demand for energy delivered to multi-dwelling units for heating and water heating by at least 10%, and if the cost indicator of the investment exceeds 0.3 – by at least 25%).

At the same time, a scheme was introduced which provided the means for multi-dwelling units which were in use before 14 August 1961 to apply for a bonus to finance ESM and making small repairs, such as: balcony repairs, exchange of equipment and installations for new ones, which are now made in the newly constructed buildings.

It should also be added that every audit is subject to verification or checking whether the assumptions of the audit comply with the law, standards, etc., and whether the formal part and the content of the audit meet the required criteria. The verification of the audits is made by authorised entities (verifiers), who have signed an agreement with Bank Gospodarstwa Krajowego under the regulation of the Minister of Infrastructure of 17 March 2009 on detailed manners of verification of energy audits and a part of repairs audits, and on detailed requirements to be met by entities contracted by Bank Gospodarstwa Krajowego to perform the verification of audits (Journal of Laws No 43, item 347).

Bank Gospodarstwa Krajowego, releases the bonuses within the available resources of the Fund and within the limits of all types of bonuses specified in the financial plan of the Fund.

Table 1: Applications accepted within TF until 31st December 2012

Bonus type	Number of applications	Value of investments (from registered applications)
Thermal-modernization	22 742	PLN 1 181 923 000 (281 410 000 € ; 1 PLN = 4.2 €)
Repairs	1 185	PLN 51 659 000 (12 300 000 € ; 1 PLN = 4.2 €)
Compensation	97	PLN 12 782 000 (3 043 000 € ; 1 PLN = 4.2 €)

State subsidy for the Thermomodernisation and Repairs Fund reached PLN 200 million in 2011. The economic slowdown of last year followed by the decision of Ministry of Finance to temporarily restrict financing that measure has reduced state (budgetary) contribution to the fund in 2013 just to 20 mio PLN that practically suspends TF activities.

Applicability for co-financing with EPC

The programme has not been used for co-financing with EPC but has increased social awareness of the energy efficiency issues.

2.1.2 The Operational Programme "Infrastructure and Environment" (OPI&E)

The Operational Programme "Infrastructure and Environment" was approved on 7th December 2007 by the European Commission. This programme belongs to the most complex ones and is announced as the largest programme in the history of the European Union. The size of the EU funds involved in the program exceeds 28 billion euro (according to version 3.0 of OPI&E dated 21st December 2011) adding to this 9,4 billion euro of national contribution sets total amount of funds involved in the implementation of the Operational Programme Infrastructure and Environment 2007-2013 at the level close to 38 billion euro.

The "Infrastructure and Environment" Operational Programme stipulates fifteen priority axes, among which there is **"Environment-friendly energy infrastructure and energy effectiveness."**

The Ministry of Economy responsible for the most interested priority axis Environmentally friendly energy infrastructure and energy efficiency (1 403,0 million euro of which 748.0 million euro from Cohesion Fund) has delegated its task further to NFOS inter alia for the actions 9.1, 9.2 and 9.3 .

Scope

The goal of Action 9.3 **Thermal-modernization of public utility facilities** was "energy-saving efforts in the public sector which would include the support for thermal-modernization of public utility facilities, including equipping facilities with appliances of the highest, economically justified energy efficiency standard, directly related to the thermal-

modernization of the building," and finally decrease in energy consumption in the public sector .

Beneficiaries::

1. Entities of the public finance sector:
   - local government units and groups, unions, associations and agreements thereof,
   - entities which are not entrepreneurs and which provide public services as part of local government own tasks;
   - official authority bodies, including government administration units, state inspection bodies, law enforcement, courts and tribunals,
   - police bodies , fire services (including Voluntary Fire Services), and municipal police bodies,
   - state universities,
   - independent public healthcare centres.
2. Non-governmental organisations, churches, church legal persons and associations thereof, and other religious associations

List and description of energy efficiency measures eligible:
Thermal-modernization of public utility facilities together with the exchange of equipment of the facilities for energy- efficient ones, as regards expenses for:

- insulation of a building,
- exchanging windows, external doors, and lighting for energy-efficient ones,
- alterations of the heating system (including the change of the heat source), ventilation and air-conditioning systems,
- preparation of technical documentation for the investment.

Projects carried out in public utility facilities where over 15% of the total space of the building is used for a business activity or housing purposes are not eligible for support.

Energy savings expected in 2016 :320 GWh as it is still an ongoing programme, and the results are differently distributed over the years official data has not been published yet.

The allocation of funds within 1st call announced in the 2009 attained a volume of 76,7 million euro. The support level could reach up to 100% of eligible costs, which addressed the expenditures for thermal insulation of peripheral shells, level and roof structures, the replacement of doors and windows, the fitting of heating plant with heat recovery unit and the fitting of ventilation systems and air-conditioning systems. The minimum amount of eligible costs of each project had to exceed the level of 10mln PLN (2,5 million EUR). About 40 projects were accepted of total value over 120 million EUR. This one call consumed all available funds within this OPI&E 9.3 action (or measure).

The success of that OPI&E measure was the reason for completely new programme created by NFOS in the year 2010 Green Investment Scheme (GIS) Part 1 "Energy Management in Public Buildings.

The 16 Regional Operational Programmes for 2007-2013 (ROP) provided similar aid for investments in increasing energy efficiency of buildings and public utility facilities (thermal-modernization), which were a part of a comprehensive investment. Actions concerning thermal-modernization of buildings were included in ROPs priority axes related to e.g. housing and environment protection. The usage level exceeded 92%. The only difference was that eligible costs should be less than 10mln PLN (2,5mln EUR).

Applicability for co-financing with EPC

Co-financing, with EPC such subsidized OPI&E's projects (regarding the scope and the level) was possible but unattractive. Nevertheless that measure (action) if repeated in the future programming seems to be most suitable for EPC but the scope of ESM and subsidy level shall be differently determined. Performance indicators for energy efficiency measures based on actual data shall be introduced. Moreover the renovated building shall meet high energy efficiency standards after reconstruction.

2.1.3 "Green Investment Scheme (GIS) Part 1 "Energy Management in Public Buildings"

After success in the year 2009 of OPI&E measure 9.3 the National Fund for Environmental Protection and Water Management (NFOS) has created a similar programme named "Energy Management in Public Buildings" being 1st part of the Green Investment Scheme (GIS) hereinafter called GIS-1
The programme was approved by the Supervisory Board of the National Fund for Environmental Protection and Water Management on 22 March 2011 but costs incurred in 2010 are eligible too.

The programme was designed in the beginning for the years 2010-2014, 3000 thousands buildings were intended to be covered by thermal modernisation, and the amount of energy saved as a result of implementation the projects should reach – 3,5 PJ/year [0,95 TWh/year]. The limitation and prevention of CO_2 emissions as a result of energy-saving by means of implementation of undertakings covered by this programme should amount to – 370 000 Mg CO_2/year.

Scope

The GIS- Programme is dedicated to the implementation of projects in public service buildings, which should be perceived as buildings intended for the performance of the following functions: self-government and state administration, jurisdiction, culture, religion, education, schools, science, health care services, social and welfare assistance, as well as buildings for collective housing intended for temporary accommodation for persons staying outside their place of residence (in particular: dormitories, halls of residence, barracks, penal institutions and juvenile detention centres), as well as buildings for permanent stay

for persons (in particular: homes for pensioners, orphanages, nursing homes, monastic houses, monasteries).
Thermal modernisation of public service buildings, including changes in the equipment of buildings in devices of the highest, economically justified standards of energy efficiency related directly to the conducted thermal modernisation of buildings, in particular:
a) heat insulation of the buildings,
b) replacement of windows,
c) replacement of external doors,
d) conversion of heating systems (in addition to the replacement of heat source),
e) replacement of ventilation and air-conditioning systems,
f) drawing up technical documentation for the project,
g) energy management systems in buildings,
h) use of RES technologies.
3) Replacement of internal lighting with energy-efficient one (as additional tasks performed simultaneously with the thermal modernisation of buildings).

Exclusions were made to those projects that were on the primary ranking list of measure 9.3 of the Infrastructure and Environment Operational Programme, or the ones that had been awarded co-financing by NFEP&WM (NFOS) funds under other programmes

Beneficiaries
1) territorial self-government units and associations thereof,
2) entities that provide public services as a part of the discharge of own obligations of the territorial self-government units and that are not enterprises,
3) Volunteer Fire Fighter Brigades,
4) universities within the meaning of the Act on higher education and scientific and research institutes,
5) independent public and non-public health care institutions,
6) non-governmental organisations, churches, other religious associations, religious legal entities conducting activity in the field health care, preventive medicine, rehabilitation and social assistance.

Subsidy Allocation Conditions

Two forms of co-financing could be delivered 1) Subsidy; 2) An interest-bearing loan.

The maximum amount of support is following:

- subsidy: amounting to 30% of eligible project (source GIS funds)
- a loan: amounting to 60% (used to be 0% 2nd call) of eligible costs of the project.

The condition that the minimum investment in ESM within the project should 2 mln. PLN (500 ths EUR- used to be 10mln PLN and 2,5 mln EUR respectively)

Additionally the following co-financing rules were set up :

1) Co-financing in form of investment loans without depreciation write-offs:

a) floating rate: WIBOR 3M + 50 base points (annually).

b) period of financing: up to 15 years counting from the first projected disbursement of loan tranche.

c) grace period: grace period for the payment of principal instalments is calculated from the date of the disbursement of the last loan tranche, yet no longer than 18 months from the completion date of the project implementation.

2) Disbursement of funds will be available after the receipt by the National Fund of invoices or equivalent accounting documents that certify the implementation of particular project stages (referred to as "milestones") provided for in the implementation schedule.

The following costs are eligible for subsiding from funds provided under GIS scheme:

1) the cost of purchase or production of new fixed assets, including:

a) plant and machinery,

b) tools, instruments and equipment,

c) technical infrastructure related to the new investment, where construction of technical infrastructure is understood as interior installations of technological facilities, connections between technological facilities, roads, technological sites, etc.

2) cost of installing and activating the fixed assets,

3) cost of purchasing materials or construction works, provided that they are directly related to objectives of the supported project

4) cost of supervision

As far as loans provided by NFEP&WM (NFOS) are concerned the following cost are eligible:

1) preparation of necessary projects and documentation, provided that expenditure related to the preparation thereof will be indicated in the application for co-financing,

2) the cost of purchase or production of new fixed assets, including:

a) buildings and structures (direct relation between the purchased buildings and structures and the project target is necessary),

b) plant and machinery,

c) tools, instruments and equipment,

d) technical infrastructure related to the new investment, where construction of technical infrastructure is understood as interior installations in technological facility, connections between technological facilities and the devices, roads, technological base, etc;

3) cost of installing and activating the fixed assets,

4) cost of purchasing materials or construction works, provided that they are directly related to the objectives of the supported project,

5) purchase of intangible assets in the form of patents, licences, technical, technological, organizational or management-related knowledge not protected by means of patents,

6) cost of supervision.

Selection Process

The projects applying for funds in the particular call must meet formal and access (applicability) criteria. Applicants are selected according to a three-phase assessment:

- assessment of formal requirements (administrative compliance);
- assessment of project acceptability (acceptability criteria);
- ranking of the only project selection criteria (DGC).

The first stage verifies whether the project should effectively meet the formal criteria of assessment. Checks are made if applicant is included in the category "Beneficiaries" and if the project complies with the types of undertaking listed in the programme.

The second part answers the questions whether application is complete, and whether the Annexes necessary for technical, ecological and financial assessment are enclosed to the application. Other important factors are: usage of new EE devices, technical feasibility (including: correct selection of technology which guarantees material durability of the investment, realistic schedule of implementation), the quality of environmental effect (including: reliability of assumptions and data, achievable ecological effect that is also possible to be maintained for 5 years after the project completion).

The **only selection criteria** is DGC defined as follows:

DGC – Dynamic Generation Cost equals the price that allows for the achievement of discounted revenues equalling the discounted costs. In other words, the DGC indicator shows the technical cost of achieving the unit of environmental effect. The cost is expressed in the Polish Zloty (PLN) per environmental effect unit. The lower the indicator value, the more efficient the undertaking is.

The formula for the calculation of the DGC indicator

$$DGC = p_{EE} = \frac{\sum_{t=0}^{t=n} \frac{KI_t - \Delta KE_t}{(1+i)^t}}{\sum_{t=0}^{t=n} \frac{EE_t}{(1+i)^t}}$$

KIt – investment costs incurred in a given year – t;

ΔKEt – energy saving costs in a given year – t;

i – discount rate (in the form of decimal fraction);

t – year; it assumes the value from 0 to n, where 0 is the year in which the first costs are incurred while n is the last year of operation of an installation.

EE – measurement of the environmental effect (in physical units) achieved in particular years. The environmental effect to which pEE price for a physical unit is attributed (assuming that this price is constant in the entire analysed period);

pEE – the cost per physical unit of environmental effect

The National Fund for Environmental Protection and Water Management (NFOS) has already announced five calls since 2010. The allocation of the 1st competition for non-repayable financing amounted to PLN 260 million and PLN 520 million in the form of a loan

(both measures of financing from the funds of the National Fund for Environmental Protection and Water Management), the allocation of the 2nd competition only for non-repayable financing amounted to PLN 181 million from funds from the Climate account. In addition, applicants could apply independently for a loan from the own sources of the National Fund.

The allocation of the 3rd call for non-repayable financing amounted to PLN 50 million and PLN 100 million in the form of a loan the allocation of the 4th call for non-repayable financing amounted to PLN 155 million from funds from the Climate account.

The last 5th call announced on 24th January 2013 providing 35mln of non-repayable financing has increased the subsidy level from Climate account (GIS own sources) up to 50% of eligible costs and introduced the rule of maximum 95%of the joint financing of the project.

It is expected that in the nearest future the National Fund for Environmental Protection and Water Management will announce another call for proposals, with an allocation for non-repayable financing of PLN 35 million from funds from the Climate account

Applicability for co-financing with EPC

The programme has been used for co-financing with EPC but as it is in progress the final outcome is to be described later.

2.1.4 "Green Investment Scheme (GIS) Part 5 "Energy Management In The Facilities Of Selected Public Finance Sector Entities"

GIS-5 is practically a "twin brother" of the GIS-1, the differences are:

- Years of implementation 2010-2015
- precisely described target group: e.g. The Polish Academy of Sciences and institutes established by the Academy, state cultural institutions, and budgetary institutions
- only direct non-repayable subsidies are granted, and up to 100% of eligible costs.
- Estimated avoided emission should reach the level of 11 500 Mg CO_2/year.

The National Fund for Environmental Protection and Water Management (NFOS) has announced just one since 2010. The allocation of the 1st call for non-repayable financing amounted to PLN 50 million. According to available information there were 25 application. The total value of received projects amounted to PLN 127,7 mln.

It is expected that in the nearest future the National Fund for Environmental Protection and Water Management will announce another call for proposals, with an allocation for non-repayable financing of PLN 30 million from funds from the Climate account

Applicability for co-financing with EPC

Co-financing, with EPC such subsidized project is possible but unattractive for budgetary entities. Cost cutting oriented units do not notice "added value" of an EPC. Relatively small value of projects also do not attract ESCO activity. Nevertheless this measure - if repeated in the future - may be a good start for demonstration project.

2.1.5 Programme EEA: Energy efficiency and the promotion of renewable energy sources

The European Economic Area Financial Mechanism and the Norwegian Financial Mechanism, Programme: "Energy efficiency and the promotion of renewable energy sources" (within the EEA Financial Mechanism and the Norwegian Financial Mechanism in 2012-2017 finally was approved on 21 December 2012 . Duration of the programme till 30 April 2017.

Total grants amount: € 75mln EUR 100 % from EEA Grants.

It is designed within two programme areas: (•PA05) - Energy efficiency (•PA06)- Renewable energy.

Ministry of Environment is a "programme operator":, but shall be administered and implemented by NFOS.

Objective:

- Reduced emissions of greenhouse gases and air pollutants
- Increased share of renewable energy in energy use

The programme is currently in the preparation stage. The Ministry of Environment and the National Fund for Environmental Protection and Water Management will prepare a strategy on the use of the bilateral fund in cooperation with the Norwegian Water Resources and Energy Directorate (NVE).

Scope

Prior to final approval: scope of the financed investments shall include:

Local projects which aim at improving energy efficiency in buildings, including thermal-modernization of public utility facilities intended for education, healthcare, social assistance and welfare, and state and local government administration;

Projects aimed at replacing obsolete heating sources with a capacity from 0.2 MW to 3 MW with modern, energy- efficient eco-friendly energy sources in public utility facilities.

Modernisation of district heating.

Promotion of RES (including solar collectors, photovoltaic systems, biogas, geothermal sources, etc.)

Currently also non-investment projects are taken into account, aimed at education and raising social awareness about energy efficiency and RES

Beneficiaries:
Public entities and private entities providing public service in Poland are eligible to apply as project applicants. Project support will be in the range of €170 000 – €3 000 000. (an avoided emission of Mg CO_2/year will be financed).

The planned level of granting shall not exceed the level of 80% (will depend on reduction of CO_2 emission)

Applicability for co-financing with EPC

The applicability of the Saving energy (...) programme for EPC projects will depend on the particular terms and conditions of the programme that is currently being prepared. There is future potential for combined financing of this type in the thermal-modernization of existing public sector buildings especially if the stress on measurement of actual savings is applied.

2.1.6 White Certification Scheme

This scheme belongs to the group of so called "horizontal measures". The Act of Effice..... which is binding till the end of 2016. The monitoring authority is the Ministry of Economy but the entity responsible for the implementation is the President of Energy Regulatory Office (URE)

There is an obligation imposed on entities supplying energy which requires either to obtain certificates of energy efficiency (white certificates) and submit them for redemption with the President of the Energy Regulatory Office, or pay a substitution fee. Although the Act comes of 2011 the date first call was announced on December 30th 2012 and first call ends on 30th January 2013.

Scope

It is designed as a support mechanism for measures aimed at improving energy efficiency of the whole economy. The list of the beneficiaries is "open". Even ESCOs obtaining relevant and necessary documents transferring the rights from an ESM owner would be able to become an applicant. The minimum applicable unit of white certificate is an equivalent of savings of 10toe. The pool of the several similar ESM, delivered to the different owners if proved to be "the same kind", can be created. The relevant document of an energy efficiency audit is a must. The scheme supports energy-efficient investments, such as modernisation of local heating grids and heat sources, buildings, lighting, household appliances, as well as energy recovery and modernisation of industrial devices and installations. The exclusions are made to those measures implemented with the support of public direct subsidies of state or European level. The ESM implemented prior to 1st January 2011 are ineligible. President of the Energy Regulatory Office is entitled to white certificates. Property rights resulting from the certificates will be subject to trading, and they will be considered a commodity subject to trading on the commodity exchange market or on the regulated market. A detailed list of investments which may participate in the tender procedure has been announced by the Minister of Economy but is not exhaustive (closed) that means that any ESM with proven savings results can apply in the white certificate tendering procedure. (The Minister of Economy will have an additional task related to system monitoring: to calculate the achieved energy savings, as well as to prepare reports and submit them to the European Commission). The acquired certificates will be sold within an "commodity exchange" to energy companies selling electricity, heat, or natural gas to final consumers connected to the grid on the territory of the Republic of Poland; final consumers connected to the grid on the territory of the Republic of Poland, who are members of the commodity exchange market, in relation to transactions concluded on their own behalf on the commodity exchange market; commodity brokerage houses or brokerage houses. Those buyers of certificates to meet their environmental obligations will present them back to President of the Energy Regulatory Office for the redemption.

The total final energy savings by 2016 are expected to reach the level of 25,586 TWh (are calculated as follows according to the regulatory impact assessment 2.2 Mtoe x 11 630 GWh).

Selection process

The so called tendering procedure (auction) is to be applied. The rights to the "white certificates" should be issued to those who asked the lowest price for 10toe of their calculated or proved savings. The composition of the rendering committee is a secret as the act as the advisory body to the President of the Energy Regulatory Office what is to announce the final results. Some of the lawyers suggest that this procedure put the whole process to a standstill.

2.1.7 Programming period 2014-2020

The Energy efficiency (EE) is an important issue of EU policy. Different sources of funding shall be applied. The Cohesion Fund will support investment in climate change adaptation and risk prevention as well as investment in the water and waste sectors, and the urban environment. In line with the Commission's proposals on the Multi-Annual Financial Framework, investment in energy would also be eligible for support, provided it has positive environmental benefits. Investment in energy efficiency and renewable energy are therefore also to be extensively supported. The European Regional Development Fund (ERDF) supports regional and local development to contribute to all thematic objectives, by setting out detailed priorities regarding inter alia climate change and moves towards a low-carbon economy. To ensure that EU investments are concentrated on its priorities, minimum allocations are set for a number of priority areas. For example, in more developed and transition regions, at least 80 % of ERDF resources at national level should be allocated to energy efficiency and renewables, innovation and SME support, of which at least 20 % should be allocated to energy efficiency and renewables. Less developed regions , like Poland, will have a broader range of investment priorities to choose from, reflecting their wider development needs nevertheless Poland will have to devote at least 50 % of ERDF resources to energy efficiency and renewables, innovation and SME support. This creates new challenges and opportunities for EE as well as EPC in Poland

The works on the plan distribution of European Funds has already started. It has been assumed that if the Common Strategic Framework (CSF) for the years 2014–2020 is implemented, as far as energy efficiency is concerned, there should be no important differences from the provisions of its predecessor non-binding communication: the Community Strategic Guidelines 2007–2013. The idea that new distribution scheme shall be programmed similar to the previous perspective has been adopted. The energy efficiency (previously called energy effectiveness) remains within a IV priority (...)moves towards a low-carbon economy (No 43 thematic objective energy efficiency (…))". It currently encompasses three basic measures

- "Assembly / installation of energy efficient (cost-effective) lighting in municipalities / cities (postulated preference for projects in the formula ESCO)

- Comprehensive thermal modernization: of SME or a multi-family buildings which consists of thermal insulation of walls, ceilings, along with the exchange of heat sources (postulated preference for projects in the formula ESCO)
- Replacing / upgrading individual heat sources, and (or) the installation of CO, the eco-boilers, in order to reduce low-emission (postulated preference for projects in the formula ESCO)"

The demarcation line is being negotiated between 16 regions and government concerning the division of task and the scope of measures to be implemented by each party.

As there public support shall be shifted from subsidies towards returnable aid (loans) the phrase that 'the "ESCO formula" shall be considered' appears in official documents. It is unclear whether there will be decisions made that the ESCOs will be able to apply for funding directly or the stress on cost-effectiveness of the support from a kind of revolving will be laid. The main barrier that the fears and concerns of lower level officials of implementing new ideas into life is to torn down. The high level officials belief that the new Regulation (amending Council Regulation (EC) No 1083/2006 of 11 July 2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund) to be adopted by 2014 shall establish special rules on PPPs will trigger a new potential.

Public Private Partnerships ("PPPs") can be an effective means of delivering projects that ensure the achievement of public policy objectives by bringing together different forms of public and private resources. In order to facilitate the use of Common Strategic Framework (CSF) Funds to support operations structured as PPPs this Regulation takes account of certain characteristics specific to PPPs by adapting some of the common provisions. New definition of PPP has also been prepared: **"Public private partnerships" (PPPs) are forms of cooperation between public bodies and the private sector, which aim to improve the delivery of investments in infrastructure projects or other types of operations delivering public services through risk sharing, pooling of private sector expertise or additional sources of capital.**

3. EPC PROJECTS IMPLEMENTED (TASK 4.3.1)

3.1 Overview of the projects

In the Republic of Poland the information has been gathered on few energy efficiency projects implemented which have been financed by combination of PPP and by EPC method but just one is currently trying to use one of the subsidy programmes. The details are provided in the table below. As can be seen, in all cases the contractor was the community. ESM encompass investments in the buildings envelope as well as insulation of the buildings. The EPC covered as well financing and implementation of technical energy-efficiency measures on the energy sources. The PPP agreement should prevent the growth of the public debt indicators.

Table 2: Overview of the energy efficiency projects implemented with combined financing EPC and PPP

Year	Contractor	Objects	Locality	ESCO	Description
2010	Municipality of Radzionków	5 schools	Radzionków	Siemens sp.z o.o.	insulation and EPC project, energy system management
2013	Municipality of Karczew	10 public buildings 9 schools and 1 health centre	Karczew	Siemens sp.z o.o	insulation and EPC project, energy system management

3.2 Case study

Below two examples of the energy efficiency projects implemented with combined financing by EPC and PPP methods are provided in more detail.

The basic conditions for the thermal-modernisations were:

- The awareness of general poor conditions of building envelope, need for renovation
- The high energy costs were noticeable.
- Energy audits have been performed.

The basic conditions for the EPC /PPP implementation

- High potential savings (and PBP) from the investment in obsolete facilities created an opportunity.
- The highest rank decision-makers were involved.
- The lack of own funds, limitations of the public debt indicators were to be carefully considered,
- The trust in external expertise and competence is a must.

3.2.1 Radzionków 4 schools and a kindergarten

The first EPC project with financing with PPP formula has been announced on 15th July 2009 by municipality of Radzionków (Silesia Region). Signed on the March the 4th next year will end on 31st December 2020. Construction works in 5 buildings were finished by October 15th 2010. Over 11 000m2 walls and 5500m2 of roofs have been insulated, 762 windows and 18 doors of total area of 2917m2 have been replaced, all 5 heating systems have been reconstructed (three completely new, fully automated heat sources have been introduced). The guarantees were issued regarding the 54% savings with heat and almost 40% on electricity. The avoided CO_2 emission within 10 years has been estimated at 4,500Mg.

The local council has confirmed the realization of all measures. The PPP agreement has no impact of the Radzionków public debt indicators.

The pioneers in Radzionków and their project have been controlled by all possible state control authorities for two years.

Table 3: Radzionków project

Name	Comprehensive termomodernisation of educational facilities of Radzionków Community
Region	Radzionków (Region: Silesia)
Type of building	4 school buildings and 1 kindergarten,
Public partner	Gmina Radzionków
Provider (private partner)	Siemens Building Technologies sp. z o.o
Year of realization	2010
Investment maturity	10 years
Period of energy savings guaranty	10 years
Review of realised measures	The project was realized in Public-Private Partnership. Within EPC project, there were realized insulation walls and roofs, replacement of windows and doors and modearte modernization and regulation of heat systems. Also other ESM's were implemented in lighting at the same time. All savings measures were implemented within 9 months. 10 years energy system management is a part of a project
Financing	Investment costs of ESM were 8 977 574 PLN (2.14 mln Euro) paid after constructions works were carried by performance guarantees were issued. Project didn't use any subsidy.

3.2.2 Karczew pool of 10 public buildings

Prior to all actions related to EPC and PPP the Mayor of Karczew (Region of Mazovia) decided to apply for "The Certificate of a Transparent Community". Such a certificate were issued on 10th November 2011 on the basis of the audit by an international audit firm.

The first EPC project with financing with PPP formula combined with GIS-1 subsidy was signed on 2nd January 2013 in Karczew but public procurement procedures had started on 24th January **2012**. The competitive dialog rules were implemented. Negotiations has been carried. The number of buildings under EPC scheme has been reduced from 11 to 10 (cost-effectiveness of the thermal modernisation of one of buildings has been too low). Independently the applications for subsidies from GIS-1 call 3 and 4 has been submitted. The municipality has applied only for subsidies in two different calls thanks to information gathered within the negotiations. The two subsidies have been granted but have not been received yet. The admission of the second grant resulted in an Annex to the PPP agreement.

Table 4: Karczew 10 public buildings project

Name	Comprehensive termomodernisation of public facilities of Karczew Community within the PPP formula
Region	Karczew
Type of building	10 public buildings (9 school buildings and one health center).
Submitter (public partner)	Gmina Karczew
Provider (private partner)	Siemens Building Technologies sp. z o.o.
Year of realization	2013
Investment maturity	15 years (1 year construction, 14 management)
Period of energy savings guaranty	14 years
Review of realised measures	The project is currently under progress within Public-Private Partnership agreement. Buildings are to be insulated, modernizated instalation of heat systems, modernizated lightings. In all buildings the energy system managment will be implemented. Remote energy system management is to be implemented an carried out for 14 years.
Financing	Investment costs of energy saving measures in PPP were estimated at 12 885 661 PLN (3.07 mio €) to be paid from reached energy savings. For the investment of public buildings the submitter received a subsidy from NFOŚiGW under GIS-1 programme (0.3 mio €, 10% total investment cost). Annex was signed, due to higher contribution of the public party the value of the contract is 10 489 341,06PLN (2,5mio €)

The guarantees were issued regarding the 56% savings with heat and just 20,9% on electricity.

3.3 Barriers and success factors

Analysing the problems in implementing EPC oriented energy efficiency projects in the Republic of Poland alone and just one with combined financing of subsidies and EPC is being currently identified with several new project announced barriers and success factors and has been identified.
Lack of the proper legislation and related to it coherent terminology.

Barriers

- The technical complexity of energy efficiency undertakings. It is pretty difficult to prepare a good EE project, if numerous technical details must be thoroughly analyzed and selected. Clients incapable of prepare good tender materials and to correctly define an EE project.
- Local authorities claim that ESCO contracts increase municipal debt. They argue that the Regulations of the Minister of Finance decisions of the Regional Courts of Auditors are unpredictable.
- The rules of subsidy schemes are not prepared for PPP, if ESM are to be introduced in public sector private partner should be able to submit
- Further, there is a number of barriers general to the application of EPC method in the Republic of Poland described in the Combines WP3 National Report for the Republic of Poland - Overview of the EPC potential and market.

Success factors

- In all cases the contractors were the municipal or regional authorities who had a need to upgrade the energy system on their objects,
- **the competitive dialog enabling creation of comprehensive project were applied**
- **the subsidies were an option.** The municipality was ready to perform comprehensive refurbishment. EPC covered financing and implementation of technical energy-efficiency measures on the energy. The subsidy is welcomed value added outcome of the lessons learned during negotiations.
- **the municipality was ready to increase its contribution** – after receiving the promise of the second grant recalculation of the contract had to be done and
- **the municipality was ready to increase the public debt indicators.**

4. Conclusion

The experience from the both implemented and being implementing energy efficiency projects financed by EPC or in combination of subsidies and EPC, shows that combining them is a very promising way to realise the highest share of the existing energy efficiency potential from the limited public funds.

The optimal approach is to implement first the rule that the savings from ESM calculated and obtained should neither be automatically deducted from the energy related spending nor from the unit's "energy budget". They should be tracked, recorded and managed within the life cycle of ESM. The cost-effectiveness rules should be applied when the decisions are made this would guarantee transparency, sustainability and potential future replication of undertaken actions.

One of the most important factors is to negotiate first the lowest possible prices of energy accepting the higher levels only then if additional services are supplied (access to meters' database, computer modelling, etc). The start from that point with the support of IPMVP rules helps to avoid unnecessary discussion on the projects' economic viability. (The lower avoided costs the lower IRR the longer payback period).

Priority, should be given to the measures on the demand side increasing the energy efficiency of the buildings and improving envelope of the facilities, which would not be performed for years unless subsidy or other form of long time support is obtained. Those actions should be performed together with the energy management and be followed by the technical measures improving energy efficiency on the supply side. Such measures are very suitable for implementation by EPC method, which simultaneously secure the financing and provide guarantees of a proper and efficient operation of the technical equipment.

In Poland „ESCO formula" as an idea is very trendy and wide spreading. Usually for the implementation of EPC a PPP agreement is negotiated and prepared (several new public procurements has been announced). It takes a lot of time (even more than a year) but the public partner:

- can independently apply and receive a subsidy and,
- may use the *ESA95 manual on government deficit and debt* provisions to exclude its liabilities related to an EPC agreement from the public debt.

The term of office lasts four years, the EPC agreements are usually concluded for a longer period the decision makers sensitive to the political (election) cycles seeks justification like PPP to implement unusual measures. Energy services outsourcing like any performance contracting is still perceived as a brand new idea in the Polish public administration sector.

To allow for wider combinations of the new methods of financing the energy efficiency projects the general awareness and efforts in capacity building must be increased. The number of barriers identified in the chapter 3 should also be eliminated, especially by adapting the rules of the subsidy programmes which enables ESCO to act as proxy or a submitter of an application of ESM to be introduced in public sector.

5. References

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ANNEX 1 RESULTS OF THE SURVEY AMONG BENEFICIARIES (TASK 4.2.1)

18 questionnaires were sent to companies declaring knowledge of EPC - ESCOs and other 5 questionnaires ESCO's clients. Several others stakeholders were informed about possibility of the free questionnaires downloading. Only four completed filled questionnaires returned from ESCO's and only three filled questionnaires from clients. All but one there completed after either personal meeting or phone conversations. Due to limited participation of ESCO in this survey the results have limited meaning.

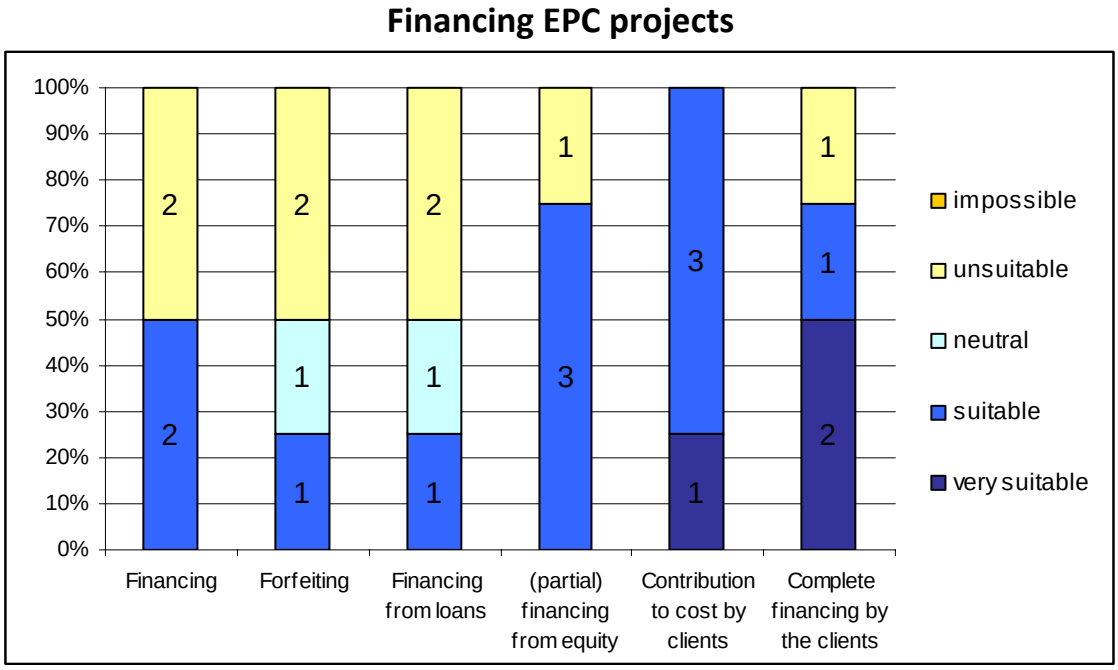

Fig. 1: Suitability of different types of EPC financing

EPC allows choosing different financing options. Regarding two extreme opinions: 50% of respondents claims that fully financing of EPC is suitable the other half that's unsuitable. 75% of ESCO's accepts partial financing from equity all welcomes contribution to cost by clients just one ESCO claims that complete financing ESM by clients is impossible.

All but one ESCO are public sector oriented, and they notice improvement in the market conditions. The municipalities starts to create specialized internal units monitoring or managing energy issues or to employ "city engineers" who shall deal with EE problems. The PPP mechanism for thermal modernization has been tested in Silesia and is a proof that EPC can be successfully implemented. The ESCOs share the belief in fast development of the market.

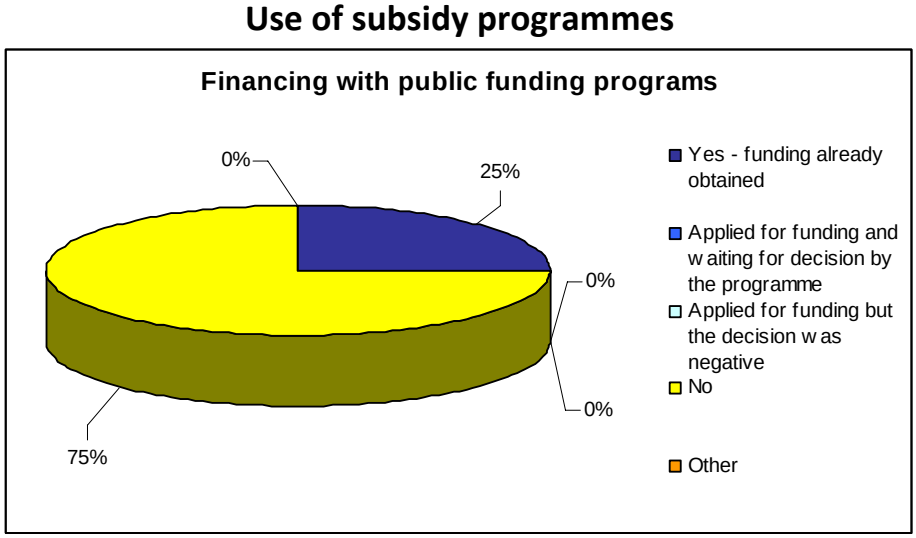

Fig. 2: Public subsidy programmes in combination with EPC projects.

The combination of EPC with subsidy schemes is not popular. First there is very limited number of EPC projects secondly only public entities can apply for them. Those who has already obtain usually has low awareness of and lack of information about the ESCO concept and simply mistrust them. They are oriented for physical output and not for difficult to calculate and compare savings. Long-lasting procurement procedures could impede timely usage of subsidies.

The PPP mechanism for thermal modernization demonstrates the routes of organizing and financing EPC projects. But these are still case studies as there are 16 independent Regional Courts of Auditors representing different opinions in can't be said that they are fully replicable.

The subsidy programmes are not ready to deliver its support to complicated structures like PPP and many justifications, explanations, interpretations creates new risk factors.

ANNEX 2 GIS PROGRAMME QUESTIONNAIRE

. 1. Access criteria			
		Yes	No
Primary access criteria (1.1, 1.2)			
1.1.	Applicant is included in the category "Beneficiaries".		
1.2.	The project complies with the types of undertaking listed in the programme.		
Remaining access criteria (1.3-1.10)			
1.3.	Application is complete and the Annexes necessary for technical, ecological and financial assessment are enclosed to it.		
1.4.	New devices were used		
1.5.	Technical feasibility (including: correct selection of technology which guarantees material durability of the investment, realistic schedule of implementation).		
1.6.	Environmental effect (including: reliability of assumptions and data, achievable ecological effect that is also possible to be maintained for 5 years after the project completion).		
1.7.	Cost analysis (including: capital expenditure and running costs estimated in accordance with confirmed data and rational assumptions)		
1.8.	Market conditions (including: appropriate assessment of the potential of renewable energy source, possibility of acquiring raw materials and energy production)		
1.9.	Institutional structure and formal and legal aspects (including: transparent proprietary structure and legal form, clear contact relations, possession of the most important permits, realistic schedule for the acquisition of the remaining permits).		
1.10.	Financial structure (including: reliable financial engineering, feasibility and financial durability of the undertaking, type and amount of collateral acceptable by the National Fund)		
Does the application qualify for further assessment?			
2. Criteria for selecting applications			
2.1 Cost-efficiency (DGC – Dynamic Generation Cost,)			