



# European Construction Sector Observatory

Policy fact sheet

**Poland**

Energy Saving Construction Programme

Thematic objectives 1, 3 & 4

October 2020

## In a nutshell

Implementing body	The National Fund for Environmental Protection and Water Management (NFEP&WM) in cooperation with 5 commercial banks <sup>1</sup> .
Key features & objectives	Top-up grant scheme for households to complement commercial loans used to construct or purchase new build energy efficient or passive homes <sup>2</sup> .
Implementation date	2013-2022 (planned) 2013-2016 (actual) <sup>3</sup>
Targeted beneficiaries	Natural persons (households) willing to build or purchase new build energy efficient or passive homes <sup>4</sup> .
Targeted sub-sectors	Residential and energy efficiency.
Budget (EUR)	67 million (PLN 300 million) <sup>5</sup>
Good practice	★ ★ ☆ ☆ ☆
Transferability	★ ★ ★ ☆ ☆

The **Energy Saving Construction Programme (ESCP)** – *Dopłaty do kredytów na budowę domów energooszczędnych*<sup>6</sup> – was launched in 2013 as a pilot programme by the National Fund for Environmental Protection and Water Management. It was one of four initiatives implemented as part of the ‘Improving Energy Performance in Poland’ (*Poprawa efektywności energetycznej*)<sup>7</sup> priority programme.

With the commitment and support of a national network of accredited lenders (commercial banks), the programme provided households with a variety of economic incentives (subsidies) to build or purchase energy-efficient or passive houses and flats.

**The ESCP aimed to incentivise the construction of new build homes that comply with EU building energy performance directives and regulations<sup>8</sup>.**

The NFEP&WM and the Ministry of Environment (Ministerstwo Środowiska) launched the pilot to support higher standard and more energy efficient residential construction projects. It aimed to increase awareness of the importance and benefits of energy efficiency and the use of innovative construction technologies, processes and products. It also aimed to make it easier for households to build or purchase an energy efficient or passive home<sup>9</sup>.

The ESCP provided applicants (households) with top-up grants to complement approved commercial loans for the purpose of building or purchasing a new build energy efficient or passive home. The level of grant available was dependent on the energy performance standard targeted by each project application, up to a maximum grant of EUR 11,115 (PLN 50,000).

**The ESCP was not a successful programme. It did not achieve its objectives and was cancelled within four years of its launch, six years before its scheduled end date.**

The household participation rate was much lower than expected. By the end of the programme, only 432 new build homes had been awarded top-up grant funding, which was just 3.6% of the planned target (12,000). That represented a total net spend of just 4.9% of the overall programme budget.

To date, approximately 81% of all grant beneficiaries have completed their projects and have received their grant payments. The remaining 19% are pending project completion verification and/or acceptance, particularly relating to compliance with energy performance standards.

# 1.

## General description

The Energy Saving Construction Programme (ESCP) was piloted to improve the energy performance of new residential buildings in Poland. The pilot was designed by the National Fund for Environmental Protection and Water Management (NFEP&WM) in collaboration with the Polish Bank Association (Związek Banków Polskich)<sup>10</sup>. It was implemented nationwide using the infrastructure and customer network of six commercial banks.

The ESCP was designed to help households to more easily understand and comply with specific national and EU construction regulations for sustainable buildings<sup>11</sup>. As shown in Figure 1, for example, ESCP guidelines only endorsed the construction of energy efficient dwellings and passive houses following the NF40 and NF15 energy consumption standards and specifications<sup>12</sup>. Economic incentives were provided to encourage the use and application of innovative construction designs, advanced technologies and good quality construction materials and processes.

Figure 1: ESCP Programme



Source: NFEP&WM<sup>13</sup>

The ESCP pilot encouraged households to invest in either energy-efficient dwellings (NF40) or passive houses (NF15), instead of non-environmentally friendly residential buildings<sup>14</sup>.

Potential beneficiaries for the ESCP programme included: (i) natural persons with a valid building permit and with the right to dispose (e.g. ownership and perpetual usufruct) of the property on which the potential beneficiary will build a residential building; or (ii) natural persons who hold the right to own property developed by a PDC across the country<sup>15</sup>.

A budget of EUR 67 million (PLN 300 million) was made available to provide economic incentives for households over a 9-year period (2013-2022). The ESCP aimed to make it easier for families in Poland to decide whether or not to proceed with the construction or purchase of energy efficient or passive homes.

Economic incentives for households were distributed in the form of non-reimbursable supplements to loans requested for either the construction of a single-family house or the purchase of a home in a multi-family building constructed by a property development company (PDC). As shown in Table 1, the ESCP programme gave households the opportunity to access lower or higher grants depending on the energy-saving standards achieved by their proposed projects<sup>16</sup>.

Table 1: Maximum ESCP grants by energy standard

<b>Construction of Single-Family Houses</b>	<ul style="list-style-type: none"> <li>• NF40 – EUR 6,670 Gross (PLN 30,000)</li> <li>• NF15 – EUR 11,115 Gross (PLN 50,000)</li> </ul>
<b>Purchase of a single House or a Flat in a Multi-Family Building</b>	<ul style="list-style-type: none"> <li>• NF40 – EUR 2,245 Gross (PLN 11,000)</li> <li>• NF15 – EUR 3,556 Gross (PLN 16,000)</li> </ul>

Source: NFEP&WM (2013b)<sup>17</sup>

The NFEP&WM established an ample list of eligible costs<sup>18</sup> for applicants to make use of when requesting grant support for the construction or purchase of an energy efficient house/flat.

Examples include the cost of:

- Construction design;
- Construction design verification;
- Leak testing;
- Purchase and installation of structural building elements;
- Purchase and installation of mechanical ventilation systems;
- Purchase and assembly of heating installations;
- Domestic hot water;
- Plumbing and electricity.

**Compliance with specific technical requirements and standards and the creditworthiness of applicants were important considerations during the ESCP application evaluation process.**

To be eligible for grant funding, applications submitted by potential beneficiaries were required to demonstrate compliance with:

- National Regulation for Construction Design (Dz.U. 2012 poz. 462)<sup>19</sup>, introduced by the Ministry of Transport, Construction and Maritime Economy (Ministerstwo Transportu, Budownictwa i Gospodarki Morskiej -MTBiGM) in 2012; and
- Minimum technical criteria for new builds<sup>20</sup> described in Annex 3 of the ESCP implementation guidelines (Minimalne wymagania techniczne)<sup>21</sup>.

The ESCP implementation guidelines covered specific aspects such as:

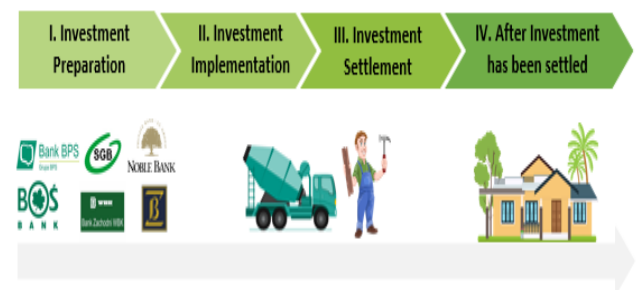
- **Building structure** (Bryła/konstrukcja budynku)
- **Hot water installations and systems** (Układy i instalacje do przygotowania ciepłej wody użytkowej)
- **Mechanical supply and exhaust ventilation systems with heat recovery** (Układy wentylacji mechanicznej nawiewno - wywiewnej z odzyskiem ciepła)
- **Heating installations and systems** (Układy i instalacje ogrzewania)

Eligibility for grant funding was also dependent on applicants passing a creditworthiness check by their chosen lender (i.e. bank), in accordance with the lender’s own regulations. As ESCP grants were effectively designed to top-up loan funding, the prior agreement of a lender to provide a loan to the applicant was a pre-requisite for ESCP funding<sup>22</sup>.

Figure 2 presents the ESCP programme lifecycle, which features a four-stage process: (i) Investment preparation (przygotowanie inwestycji); (ii) Investment Implementation (realizacja inwestycji); (iii) Investment Settlement (rozliczenie inwestycji); (iv) After Investment Settlement (po rozliczeniu inwestycji).

The four-stage lifecycle process is the same for both the construction of new homes and the purchase of a house or flat developed by a DPC. However, there are slight differences in the procedural steps required for construction or purchase, including the intermediaries involved.

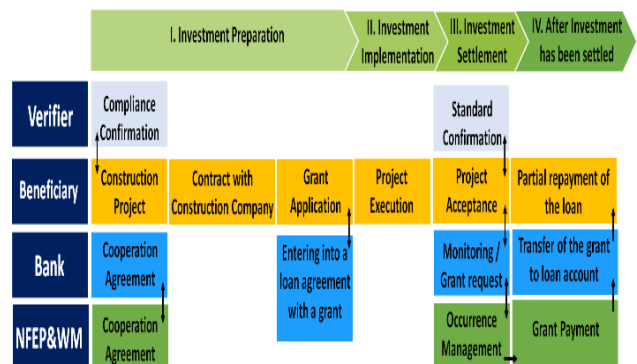
Figure 2: ESCP programme lifecycle



Source: NFEP&WM (2013b)<sup>23</sup>

Figure 3 illustrates the **grant award process for construction projects**. The process involves four intermediaries and the grant beneficiary has 100% of the responsibility for achieving the expected results. Construction project applications must include the proposed building design(s). They must adhere to the technical requirements and standards for building an energy efficient house or a passive dwelling. Applicants must also provide a signed agreement with a valid verifier. Building designs must be verified to ensure achievement of the required energy performance<sup>24</sup>.

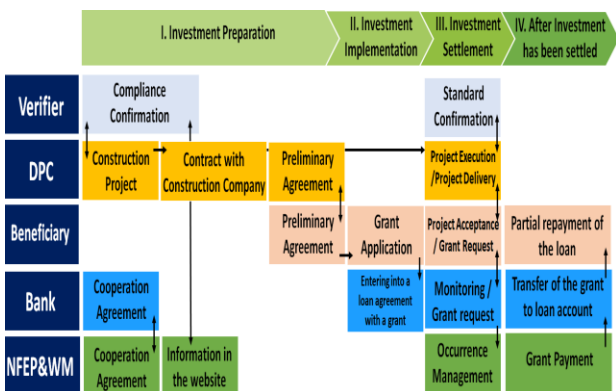
Figure 3: Grant process for construction projects



Source: NFEP&WM (2013b)<sup>25</sup>

Figure 4 illustrates the **grant award process for purchasing projects**. The process involves five intermediaries and the responsibility for achieving the expected results is shared by the DPC and the beneficiary. In addition to the requirements that must be fulfilled for a construction project, applicants must also provide a certified document that establishes the right for the transference of ownership of the property upon completion of the new build construction project.

Figure 4: Grant process for purchasing projects



Source: NFEP&WM (2013b)<sup>26</sup>

Applications that obtain approval in the preparation stage, either for the construction or purchase of an energy efficient house/flat, are automatically classified by both the NFEP&WM and their lender<sup>27</sup> as “ESCP beneficiaries”. However, grant payments are only made to the beneficiary upon completion of the construction project or once the ownership of a property built by a DPC has been transferred.

Beneficiaries are required to certify that the energy standards proposed by the project during the preparation stage were clearly fulfilled during the investment settlement stage. Projects that target NF15 (passive house) standards but fail to comply

with the technical requirements have the chance to be assessed against the technical requirements of the NF40 (energy efficient dwelling) standard. Projects that fail to comply with both standards stipulated by the programme automatically lose the right to receive their grant award.

To maintain an ESCP grant award after investment has been completed, further conditions<sup>28</sup> apply:

- Beneficiaries must commit to maintain the property for a minimum period of 3 years after completion of the construction project (durability period);
- Construction projects should not last longer than three years. The start date for a construction project is understood to be the date that the project application was accepted by the bank;
- Beneficiaries must commit to not apply any structural changes to the building and/or the installations within it (e.g. walls, roof, ceilings, floors, windows, ventilation and heating systems, etc.);
- Beneficiaries must submit an annual energy performance evaluation sheet to their lender every year for a period of three years after completion of their project. In addition, beneficiaries must also submit a declaration confirming the durability of their project to their lender within 30 days from the date of expiry of the durability period. This is in accordance with the guidelines and requirements of the ESCP programme;
- Beneficiaries should allow the NFEP&WM to carry out random thermal imaging tests to confirm the quality of the construction.

## 2.

## Achieved or expected results

The ESCP programme was thought to be the ideal vehicle to encourage families to invest in the construction or the purchase of new build energy efficient or passive houses/flats, and to promote energy efficient construction for residential use in Poland. The NFEP&WM expected this pioneering programme to incentivise the construction or purchase of 12,000 new energy efficient and passive houses and apartments during the programme's lifetime<sup>29</sup>.

Energy consumption levels per square metre built (m<sup>2</sup>) were established as technical requirements and specifications for energy efficient dwellings (NF40) and passive houses (NF15). On this basis, the NFEP&WM expected to achieve energy savings of nearly 93.5 thousand megawatt-hours (MWh) per year and to decrease CO<sub>2</sub> emissions from residential buildings by approximately 32.3 thousand Mg per year<sup>30</sup> by the end of the programme (2022).

To improve and advance the construction of energy efficient and passive houses/flats in Poland, the ESCP established strict procedural and technical requirements for all project applications<sup>31</sup>.

The technical requirements, as shown in Table 2 (NF15) and Table 3 (NF40), were defined with two objectives in mind: (i) the assessment of projects accepted within the ESCP programme; and (ii) the introduction of a sector specific framework to increase quality in residential construction projects and the use of innovative energy-saving products, systems and technologies.

The final values included as technical requirements were calculated by the NFEP&WM based on methodologies, recommendations and energy coefficients included in diverse directives for energy efficient buildings and materials. Examples

include: PN-EN ISO 13790: 2009, PN-EN ISO 13370: 2001, PN-EN ISO 10077-1: 2007, PN-EN ISO 10211: 2008, PN-83/B-03430/AZ3: 2000 and PN-EN 308: 2001 and Directive 2010/31/EU<sup>32</sup>.

Table 2: NF15 technical requirements for energy efficient and passive houses/flats

No	Technical Requirement	NF 15	
		Construction	Purchase
<b>1</b>	<b>Building body / structure</b>		
1.1	<i>Limit values of partitions' heat transfer coefficients U<sub>max</sub> [W/m<sup>2</sup>K]</i>		
a	Exterior walls	≤ 0,10	≤ 0,15
b	Roofs, flat roofs and ceilings under unheated attics or over crossings	≤ 0,10	≤ 0,12
c	Ceilings over unheated cellars and closed under-floor spaces, floors on the ground	≤ 0,12	≤ 0,15
d	Windows, skylights, balcony doors and non-opening transparent surfaces	≤ 0,80	≤ 0,80
e	Exterior and garage doors	≤ 0,80	≤ 1,00
1.2	<i>Limit values of linear heat loss coefficients of thermal bridges [W/mK]</i>		
a	Balcony slabs	≤ 0,01	≤ 0,30
b	Other thermal bridges	≤ 0,01	≤ 0,10
<b>2</b>	<b>Mechanical supply and exhaust ventilation systems with heat recovery</b>		
2.1	Ultimate temperature efficiency of heat recovery (%)	≥ 90	≥ 80
<b>3</b>	<b>Heating systems and installations</b>		
3.1	Minimum total value of the efficiency of transmission, accumulation, regulation and use of the heating system (%)	≥ 92	≥ 90
<b>4</b>	<b>Water systems and installations</b>		
4.1	<i>Minimum nominal energy generation efficiency for individual types of fuel [%]</i>		
a	Coal with a retort furnace and smooth regulation of heating power (30 to 100%)	85	88
b	Biomass (only wood fuel boilers)	82	86
c	Natural gas, liquefied petroleum gas, heating oil	102	104
d	Heat pumps (COP)	350 (3,5)	
e	District heating system	98	
f	Electricity	99	

Source: NFEP&WM (2013a; 2013c)<sup>33</sup>

Table 3: NF40 technical requirements for energy efficient and passive houses/flats

No.	Technical Requirement	NF40	
		Construction	Purchase
1	<b>Building body / structure</b>		
1.1	<i>Limit values of partitions' heat transfer coefficients <math>U_{max}</math> [W/m<sup>2</sup>K]</i>		
a	Exterior walls	≤ 0,15	≤ 0,20
b	Roofs, flat roofs and ceilings under unheated attics or over crossings	≤ 0,12	≤ 0,15
c	Ceilings over unheated cellars and closed under-floor spaces, floors on the ground	≤ 0,20	≤ 0,20
d	Windows, skylights, balcony doors and non-opening transparent surfaces	≤ 1,00	≤ 1,30
e	Exterior and garage doors	≤ 1,30	≤ 1,50
1.2	<i>Limit values of linear heat loss coefficients of thermal bridges [W/mK]</i>		
a	Balcony slabs	≤ 0,01	≤ 0,30
b	Other thermal bridges	≤ 0,01	≤ 0,10
2	<b>Mechanical supply and exhaust ventilation systems with heat recovery</b>		
2.1	Ultimate temperature efficiency of heat recovery (%)	≥ 85	≥ 70
3	<b>Heating systems and installations</b>		
3.1	Minimum total value of the efficiency of transmission, accumulation, regulation and use of the heating system (%)	≥ 90	≥ 88
4	<b>Water systems and installations</b>		
4.1	<i>Minimum nominal energy generation efficiency for individual types of fuel [%]</i>		
a	Coal with a retort furnace and smooth regulation of heating power (30 to 100%)	85	88
b	Biomass (only wood fuel boilers)	82	86
c	Natural gas, liquefied petroleum gas, heating oil	102	104
d	Heat pumps (COP)	350 (3,5)	
e	District heating system	98	
f	Electricity	99	

Source: NFEP&WM (2013a; 2013c)<sup>34</sup>

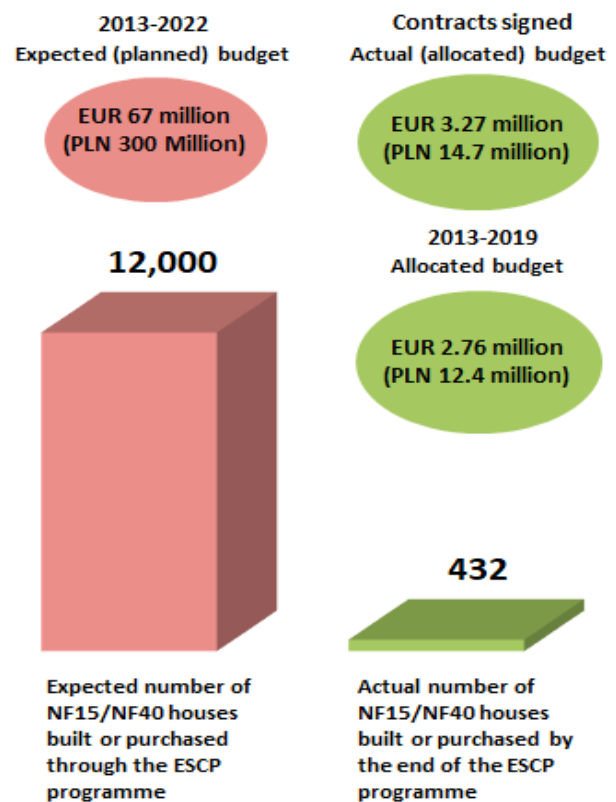
The Ministry of Environment, the NFEP&WM and the Polish Bank Association were very enthusiastic, motivated and convinced about the future success of this pioneering programme in Poland. However, the first call for applications (2013-2015) revealed a mismatch between expectations of budget allocation, the participation of potential beneficiaries, successful projects implemented, programme durability, and the programme's socio-environmental outcomes and impacts.

**The ESCP was cancelled within three years of its inception due to low uptake from households. The strict requirements and conditions imposed by the grant application process were not sufficiently appealing to households.**

The programme was scheduled to be implemented over 9 years (2013-2022). The first five years (2013-2018) were intended to focus on the reception of proposals and the selection of beneficiaries. However, after evaluating the results achieved by the first ESCP call for proposals (2013-2015), the Ministry of Environment and the NFEP&WM decided in the first half of 2016 to cancel the second call for proposals, which had been scheduled for 2016-2018<sup>35</sup>.

A total of 158 projects were approved in the first call for proposals. Grant awards to these projects amounted to just 1.78% (EUR 1.19 million / PLN 5.34 million) of the total programme budget (EUR 67 million / PLN 300 million)<sup>36</sup>. The budget for the first call was intended to be EUR 22 million (PLN 100 million), followed by a EUR 45 million (PLN 200 million) budget for the second call. By the time the ESCP was closed (2016), as shown in Figure 5, the programme had signed a total of 432 agreements for the construction or purchase of an energy efficient house/flat<sup>37</sup>. The actual total spent was 4.9% of the original budget.

Figure 5: Signed agreements and allocated budget



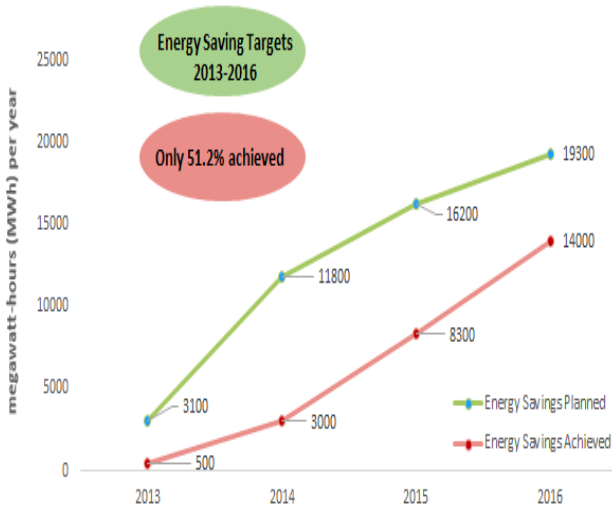
Source: NFEP&WM (2014-2019)<sup>38</sup>

Nearly 64% of the agreements signed as part of the ESCP were expected to be completed by the end of 2019. However, only 350 out of 432 have actually been completed. Difficulties with the verification and validation of the standards achieved by some projects have delayed the payment of subsidies, compared to the planned payment dates (NFEP&WM, 2019b).

Figure 5 also shows that the ESCP fell significantly short of its original objectives. The total number of contracts signed (432) for the construction or purchase of NF15/NF40 compliant new build homes amounts to just 3.6% of the programme’s original objectives (12,000).

The ESCP underperformed in relation to its annual energy saving targets. As shown in Figure 6, approved projects between 2013 and 2016 were expected to achieve energy savings of 50.4 thousand MWh/year (sum of annual targets). However, the actual savings achieved by those projects amounted to 25.8 thousand MWh/year (sum of annual savings), just over half (51.2%) of their target, and 27.6% of the ESCP’s overall target of 93.5 thousand MWh/year by 2022<sup>39</sup>.

Figure 6: Energy saving targets and results (2013-16)

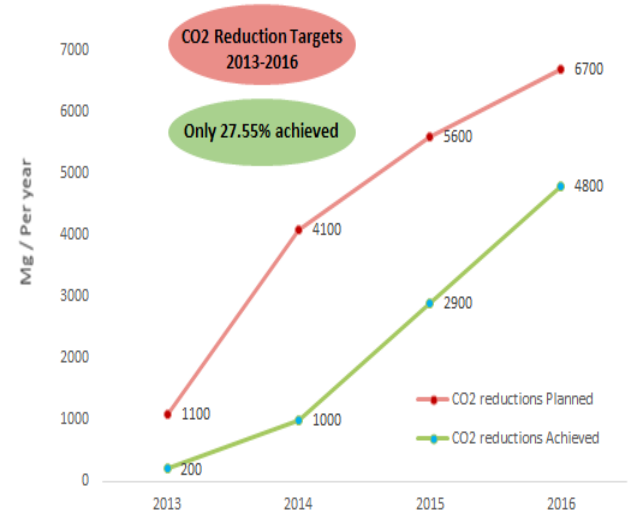


Source: NFEP&WM (2016c)<sup>40</sup>

The ESCP also underperformed in relation to its annual CO<sub>2</sub> emission reduction targets. As shown in Figure 7, approved projects between 2013 and

2016 were expected to achieve 17.5 thousand Mg per year in CO<sub>2</sub> emission reductions. However, the actual reductions achieved by those projects amounted to 8.9 thousand Mg per year (sum of annual reductions), just over half (51%) of their target, and 27.5% of the ESCP’s overall target of 32.3 thousand Mg per year by 2022<sup>41</sup>.

Figure 7: CO<sub>2</sub> emission reduction targets and results (2013-16)



Source: NFEP&WM (2016c)<sup>42</sup>

Overall, the ESCP did not manage to achieve its medium or longer-term targets. Lower than expected uptake of the scheme is the principal reason for its early cancellation. Strict procedural and technical requirements appear to have deterred many households from taking advantage of the scheme.

The NFEP&WM took the decision to cancel the pilot programme in order to minimise the economic losses and social costs of maintaining an unsuccessful programme over a longer period. ESCP funds were instead reallocated to support other construction sector-related policies, programmes and projects being implemented as part of the “Improving Energy Performance in Poland” (Poprawa efektywności energetycznej) priority area. The main focus was to support initiatives that have a greater chance of success (results and impact), and which represent better value for money<sup>43</sup>.



## 3.

## Perspectives and lessons learned

**The ESCP was a pioneering programme developed in cooperation with the financial sector. However, it failed to provide an attractive package of grants for potential beneficiaries.**

According to a spokesperson of the NFEP&WM<sup>44</sup> and representatives of the Polish Bank Association (2019b), the grants offered by the ESCP were not proportional to the level of investment and commitment potential beneficiaries were expected to make. According to the Teraz Środowisko<sup>45</sup> – an online B2B journal for specialists in the environmental protection sector – the conditions and standards stipulated by the ESCP programme were not properly compensated by the available grants.

On top of the costs associated with the construction or purchase of an energy efficient house (e.g. construction design, project implementation, materials, registry, etc.), potential beneficiaries were also required by the ESCP to cover the additional cost of, for example, certifications, documentation, energy testing and construction project verification.

**Mortgages and loans offered by the financial lenders in Poland were considered by households to be less restrictive and more attractive for the construction or the purchase of energy efficient houses/flats that the loan and top up grants offered by the ESCP.**

According to the editor of Bankier.pl<sup>46</sup> – a leading finance portal in Poland – and a representative at PFR Nieruchomości<sup>47</sup> (part of the Polish Development Bank), the ESCP suffered from two major design problems that limited its ability to

compete with lending solutions offered by the financial sector.

First, interest rates on the commercial loans offered by lenders, as part of the ESCP package of support (loan plus top-up grant), were on average 100 basis points more expensive than the market rates available for traditional mortgage and household loans.

Second, ESCP grants were classified as taxable income, meaning that grant beneficiaries would need to pay tax to the government for the aid received.

In combination, high loan interest rates and the low net level of top-up grants acted as a double disincentive for potential ESCP applicants and beneficiaries.

**ESCP procedural and technical requirements for energy efficient new build homes were too complex and restrictive. Instead of incentivising the construction of energy efficient homes, they discouraged builders and households from participating<sup>48</sup>.**

According to the President of the NFEP&WM<sup>49</sup> and the Ministry of Environment, the energy efficient guidelines, methods and practices specified by the ESCP were too restrictive for many Polish construction companies. This placed limitations on the options available to households wishing to take advantage of the programme.

According to the Polish Bank Association<sup>50</sup>, the ESCP's strict technical requirements made construction projects more complex and less feasible, which ultimately hindered the success of the programme.

## 4.

## Conclusion and recommendation

The Energy Saving Construction Programme (ESCP) was not a successful initiative. It failed to attract a sufficient level of participation from households and was therefore unable to meet its objectives.

In spite of introducing simpler technical building requirements in 2015 and 2016, the ESCP was unable to increase participation. As a result, the programme was cancelled in 2016. By the time of its closure, the ESCP had awarded grants to support the construction of 432 new build energy efficient homes, 3.6% of the original target (12,000), with 4.9% of the programme's overall budget being spent.

To date, 350 of the 432 funded new build homes have been completed. Issues related to standards-based project verification and validation have caused delays in some cases.

Looking forward, five recommendations are suggested to help improve similar initiatives to the ESCP that may be implemented in the future:

- Less restrictive technical requirements for the design and construction of energy efficient dwellings and passive houses, including a broader spectrum of construction methods, systems technologies and materials, may help to increase participation;
- Grants should be proportional to the level of investment that projects are required to make to comply with technical requirements and to achieve energy saving targets;
- Grants should also take into account the additional costs incurred by potential beneficiaries in order to satisfy specific

programme requirements and conditions (e.g. certifications, verifications and tests);

- More competitive loan interest rates from commercial lenders that are cooperating with grant support programmes would help to incentivise greater participation;
- Fiscal incentives such as tax relief on energy efficiency grants may help to incentivise increased participation in loan plus top-up grant programmes.

Overall, the Energy Saving Construction Programme (ESCP) is rated as a '2-star good practice measure' on a scale of 1 (low) to 5 (high).

This score is based on the programme's underperformance against most of its objectives, as well as its cancellation six years prior to its original end date. The concept and purpose of the programme is considered to have been positive and innovative; however, key design problems limited its appeal to households and the construction sector.

The Energy Saving Construction Programme (ESCP) is rated as a '3-star transferable measure' on a scale of 1 (low) to 5 (high).

In spite of its underperformance against objectives, the standards-based approach adopted by the ESCP and the experience and lessons learned during implementation could prove useful in the design of similar measures in Poland and in other countries. The public-private partnership adopted by the ESCP, including the design problems that hampered the programme's implementation and success, should also help to inform improved measures in the future.

# Endnotes

- 1 The National Fund for Environmental Protection and Water Management, also known in Polish as the “*Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej - NFOŚiGW*” was created in 1989 and has the responsibility for the successful implementation of new environmental protection policies in Poland. The fund offers loans, subsidies and other forms of co-financing of projects implemented, among others by local governments, enterprises, public entities, social organizations as well as natural persons.  
Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2020a), O Funduszu:  
<http://nfosigw.gov.pl/o-nfosigw/>  
Notwithstanding seven (7) banks signed the cooperation agreement with the NFEF&WM for the implementation of the programme, only 6 out of 7 effectively participated in its implementation. The seven banks who signed the agreement were: (i) Bank Polskiej Spółdzielczości SA; (ii) SGB-Bank SA; (iii) Bank Ochrony Środowiska SA; (iv) Bank Zachodni WBK SA; (v) Getin Noble Bank SA; (vi) Nordea Bank Polska SA; and (vii) Deutsche Bank PBC SA. The Polish Bank Association is  
European Commission; Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej & Związek Banków Polskich (2019b), Przesłanki włączenia banków do udziału w dystrybucji środków publicznych przeznaczonych na poprawę efektywności energetycznej. - okrągły stół dotyczący finansowania efektywności energetycznej w Polsce:  
[https://ec.europa.eu/energy/sites/ener/files/documents/bmeluch\\_-\\_przeslanki\\_wlaczania\\_bankow\\_do\\_udzialu\\_w\\_dystrybucji\\_srodkow\\_publicznych.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/bmeluch_-_przeslanki_wlaczania_bankow_do_udzialu_w_dystrybucji_srodkow_publicznych.pdf)
- 2 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2020b), Dopłaty do domów energooszczędnych:  
<https://www.nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplaty-do--kredytow-na-domy-energooszczedne/>
- 3 The programme was foreseen to be implemented in two rounds during a period of five (5) years between 2013 and 2018. However, after the negative results obtained during its first round of implementation, the NFEF&WM decided to abolish the programme in July of 2016.  
Szydłowski. Kamil - Teraz Środowisko (2016a), Nikłe zainteresowanie budownictwem pasywnym w Polsce:  
<https://www.teraz-srodowisko.pl/aktualnosci/Nikle-zainteresowanie-budownictwem-pasywnym-w-Polsce-2712.html>
- 4 Households can either build a single-family house or purchase a newly built house/flat in a multi-family block. In 2012, single family houses and multi-family blocks of flats represented around 88% of the residential building stock in Poland and 94% in terms of net floor area. In 2018, single family houses and multi-family blocks of flats represented around 67% of the entire building stock.  
Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2020c), Informacje o programie:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplaty-do--kredytow-na-domy-energooszczedne/informacje-o-programie/>  
Buildings Performance Institute Europe (BPIE), Implementing nearly zero-energy buildings (nzeb) in Poland - towards a definition and roadmap:  
<http://bpie.eu/wp-content/uploads/2015/10/nZEB-Full-report-Poland.pdf>
- 5 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2015a), Treść programu priorytetowego:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplaty-do--kredytow-na-domy-energooszczedne/informacje-o-programie/>
- 6 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2020c), Informacje o programie:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplaty-do--kredytow-na-domy-energooszczedne/informacje-o-programie/>
- 7 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2020d), Programy 2014:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy/>
- 8 European Commission (2020a), Energy performance of buildings directive:  
[https://ec.europa.eu/energy/topics/energy-efficiency/energy-efficient-buildings/energy-performance-buildings-directive\\_en](https://ec.europa.eu/energy/topics/energy-efficiency/energy-efficient-buildings/energy-performance-buildings-directive_en)
- 9 Związek Banków Polskich (2013a), Rusza nowy program wsparcia budownictwa mieszkaniowego:  
<https://www.zbp.pl/aktualnosci/Archiwalne-wydarzenia/rusza-nowy-program-wsparcia-budownictwa-mieszkanie>
- 10 Związek Banków Polskich (2013a), Rusza nowy program wsparcia budownictwa mieszkaniowego:  
<https://www.zbp.pl/aktualnosci/Archiwalne-wydarzenia/rusza-nowy-program-wsparcia-budownictwa-mieszkanie>
- 11 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2015a), Treść programu priorytetowego, p.2:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplaty-do--kredytow-na-domy-energooszczedne/informacje-o-programie/>
- 12 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2015a), Treść programu priorytetowego, pp.2-6:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplaty-do--kredytow-na-domy-energooszczedne/informacje-o-programie/>

- Bialek, Marta – Oferteo.pl (2016a), Dofinansowanie i kredyt na dom energooszczędny:  
<https://www.oferteo.pl/baza-wiedzy/dofinansowanie-i-kredyt-na-dom-energooszczedny>
- 13 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2013a), Prezentacja z wytycznych do programu:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplady-do--kredytow-na-domy-energooszczedne/prezentacje-z-wytycznych-do-programu/>
- 14 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2013a), Prezentacja z wytycznych do programu:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplady-do--kredytow-na-domy-energooszczedne/prezentacje-z-wytycznych-do-programu/>
- 15 Central Statistical Office & The Polish National Energy Conservation Agency (2018a), Energy Efficiency trends and policies in Poland in years 2006-2016, pp.31-32:  
<https://www.odyssee-mure.eu/publications/national-reports/energy-efficiency-poland.pdf>
- 16 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2013b), Prezentacja II. Procedura otrzymania dofinansowania:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplady-do--kredytow-na-domy-energooszczedne/prezentacje-z-wytycznych-do-programu/>  
 European Commission & Ministry of Economy of Poland (2014a), National Energy Efficiency Action Plan for Poland 2014, pp. 49-52:  
[https://ec.europa.eu/energy/sites/ener/files/documents/NEEAP\\_Poland\\_ENG\\_2014.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/NEEAP_Poland_ENG_2014.pdf)  
 Dom.PL (2014a), Dopłaty do domów energooszczędnych – możesz dostać do 50 tys:  
<https://www.dom.pl/doplady-do-domow-energooszczednych-mozesz-dostac-do-50-tys.html>
- 17 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2013b), Prezentacja II. Procedura otrzymania dofinansowania:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplady-do--kredytow-na-domy-energooszczedne/prezentacje-z-wytycznych-do-programu/>
- 18 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2013a), Prezentacja z wytycznych do programu:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplady-do--kredytow-na-domy-energooszczedne/prezentacje-z-wytycznych-do-programu/>
- 19 Internetowy System Aktów Prawnych - ISAP (2020a), Rozporządzenie Ministra Transportu, Budownictwa i Gospodarki Morskiej z dnia 25 kwietnia 2012 r. w sprawie szczegółowego zakresu i formy projektu budowlanego:  
<http://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20120000462>
- 20 The final energy measures for all the technical conditions established within this programme were calculated in accordance to the methodology for calculating the energy performance of a building included in the Ordinance of the Minister of Infrastructure of November 2008 (Dz.U. 2008 nr 201 poz. 1238).  
 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2015a), Treść programu priorytetowego, pp.24-32:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplady-do--kredytow-na-domy-energooszczedne/informacje-o-programie/>
- 21 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2013c), Prezentacja III. Minimalne wymagania techniczne:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplady-do--kredytow-na-domy-energooszczedne/prezentacje-z-wytycznych-do-programu/>  
 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2020e), Wymagania techniczne dla budynków  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplady-do--kredytow-na-domy-energooszczedne/wytyczne-do-programu-priorytpt/>
- 22 The applicants' creditworthiness review was applied according to the internal regulations of each bank participating in the implementation of this initiative. Common evaluation criteria were not defined as part of the pilot to assess the creditworthiness of potential beneficiaries (applicants).  
 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2013b), Prezentacja II. Procedura otrzymania dofinansowania:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplady-do--kredytow-na-domy-energooszczedne/prezentacje-z-wytycznych-do-programu/>
- 23 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2013b), Prezentacja II. Procedura otrzymania dofinansowania:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplady-do--kredytow-na-domy-energooszczedne/prezentacje-z-wytycznych-do-programu/>
- 24 Verifiers, as described in the guidelines of the programme, were experts at the disposal of participants for carrying out the supervision and technical verification of the proposed projects. Unlike to other funding programmes, participants within this pilot should assume all related costs for the verification of the design and accomplishment validation of the energy saving standards.  
 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2020f), Lista weryfikatorów:

- <http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplaty-do--kredytow-na-domy-energooszczedne/lista-weryfikatorow/>
- Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2013b), Prezentacja II. Procedura otrzymania dofinansowania, p.4:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplaty-do--kredytow-na-domy-energooszczedne/prezentacje-z-wytocznych-do-programu/>
- Ministerstwo Środowiska (2014a), Dofinansowanie dla domu energooszczędnego w kilku krokach  
<http://oszczedzam-energie.mos.gov.pl/dofinansowanie-dla-domu-energooszczednego-w-kilku-krokach/>
- 25 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2013b), Prezentacja II. Procedura otrzymania dofinansowania, p.6:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplaty-do--kredytow-na-domy-energooszczedne/prezentacje-z-wytocznych-do-programu/>
- 26 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2013b), Prezentacja II. Procedura otrzymania dofinansowania, p.7:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplaty-do--kredytow-na-domy-energooszczedne/prezentacje-z-wytocznych-do-programu/>
- 27 The submission of applications, as part of the preparation phase, was only possible through one of the commercial banks included in the cooperation agreement signed with the NFEP&WM.
- 28 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2013b), Prezentacja II. Procedura otrzymania dofinansowania, p.14:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplaty-do--kredytow-na-domy-energooszczedne/prezentacje-z-wytocznych-do-programu/>
- 29 Związek Banków Polskich (2013a), Rusza nowy program wsparcia budownictwa mieszkaniowego:  
<https://www.zbp.pl/aktualnosci/Archiwalne-wydarzenia/rusza-nowy-program-wsparcia-budownictwa-mieszkanie>
- Związek Banków Polskich (2013b), Energooszczędny kredyt hipoteczny już dostępny:  
<https://www.zbp.pl/aktualnosci/Archiwalne-wydarzenia/energooszczedny-kredyt-hipoteczny-juz-dostepny>
- 30 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2013a), Efektywne wykorzystanie energii: Część: 3-Dopłaty do kredytów na budowę domów energooszczędnych, p.1:  
[http://cieplej.pl/imgturysta/file/program\\_priorytetowy\\_-\\_domy\\_-\\_18\\_07\\_2013.pdf](http://cieplej.pl/imgturysta/file/program_priorytetowy_-_domy_-_18_07_2013.pdf)
- DG Climate Action - Ecologic Institute (2014a), Assessment of climate change policies in the context of the European Semester - Country Report: Poland, p.15:  
[https://ec.europa.eu/clima/sites/clima/files/strategies/progress/reporting/docs/pl\\_2014\\_en.pdf](https://ec.europa.eu/clima/sites/clima/files/strategies/progress/reporting/docs/pl_2014_en.pdf)
- 31 Związek Banków Polskich (2014a), Domy Energooszczędne – program nabiera tempa:  
<https://www.zbp.pl/aktualnosci/Archiwalne-wydarzenia/domy-energooszczedne-program-nabiera-tempa>
- 32 Thermal performance of buildings - calculation of energy use for space heating and cooling: PN-EN ISO 13790: 2009.  
Thermal properties of buildings - Heat transfer through the ground - Calculation methods: PN-EN ISO 13370: 2001.  
Thermal performance of windows, doors and shutters - Calculation of thermal transmittance: PN-EN ISO 10077-1: 2007.  
Thermal bridges in building construction - heat flows and surface temperatures: PN-EN ISO 10211: 2008.  
Ventilation in residential buildings of collective residence and public utility requirements: PN-83/B-03430/AZ3: 2000.  
Heat exchangers: PN-EN 308: 2001.  
Energy performance of buildings: Directive 2010/31/EU.
- 33 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2013a), Efektywne wykorzystanie energii: Część: 3-Dopłaty do kredytów na budowę domów energooszczędnych pp.8-11:  
[http://cieplej.pl/imgturysta/file/program\\_priorytetowy\\_-\\_domy\\_-\\_18\\_07\\_2013.pdf](http://cieplej.pl/imgturysta/file/program_priorytetowy_-_domy_-_18_07_2013.pdf)
- Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2013c), Prezentacja III. Minimalne wymagania techniczne, pp.9-12:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplaty-do--kredytow-na-domy-energooszczedne/prezentacje-z-wytocznych-do-programu/>
- 34 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2013a), Efektywne wykorzystanie energii: Część: 3-Dopłaty do kredytów na budowę domów energooszczędnych pp.8-11:  
[http://cieplej.pl/imgturysta/file/program\\_priorytetowy\\_-\\_domy\\_-\\_18\\_07\\_2013.pdf](http://cieplej.pl/imgturysta/file/program_priorytetowy_-_domy_-_18_07_2013.pdf)
- Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2013c), Prezentacja III. Minimalne wymagania techniczne, pp.9-12:  
<http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplaty-do--kredytow-na-domy-energooszczedne/prezentacje-z-wytocznych-do-programu/>
- 35 Szydłowski. Kamil - Teraz Środowisko (2016a), Nikle zainteresowanie budownictwem pasywnym w Polsce:  
<https://www.teraz-srodowisko.pl/aktualnosci/Nikle-zainteresowanie-budownictwem-pasywnym-w-Polsce-2712.html>
- 36 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2016a), Bieżące efekty wdrażania:

- <http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/doplatty-do-kredytow-na-domo-energooszczedne/oprocentowanie-i-oplaty/>
- 37 KB.PL (2020a), Dopłaty do domu energooszczędnego - zasady, jak uzyskać dofinansowanie:  
<https://kb.pl/porady/doplatty-do-domu-energooszczednego-zasady-jak-uzyskac-dofinansowanie/>  
Gramwzielone.PL (2016a), Koniec dopłat do kredytów na budowę domów energooszczędnych:  
<https://gramwzielone.pl/dom-energooszczedny/21876/koniec-doplat-do-kredytow-na-budowe-domow-energooszczednych>
- 38 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2013e), SPRAWOZDANIE z działalności Narodowego Funduszu Ochrony Środowiska i Gospodarki Wodnej w 2013 roku:  
[https://nfosigw.gov.pl/gfx/nfosigw/userfiles/files/o\\_nfosigw/sprawozdania\\_z\\_dzialalnosci/2013/sprawozdanie\\_z\\_dzialalnosci\\_nfosigw\\_w\\_2013\\_r.pdf](https://nfosigw.gov.pl/gfx/nfosigw/userfiles/files/o_nfosigw/sprawozdania_z_dzialalnosci/2013/sprawozdanie_z_dzialalnosci_nfosigw_w_2013_r.pdf)  
Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2014a), SPRAWOZDANIE z działalności Narodowego Funduszu Ochrony Środowiska i Gospodarki Wodnej w 2014 roku:  
[https://nfosigw.gov.pl/gfx/nfosigw/userfiles/files/o\\_nfosigw/sprawozdania\\_z\\_dzialalnosci/2014/sprawozdanie\\_z\\_dzialalnosci\\_nfosigw\\_w\\_2014\\_r.pdf](https://nfosigw.gov.pl/gfx/nfosigw/userfiles/files/o_nfosigw/sprawozdania_z_dzialalnosci/2014/sprawozdanie_z_dzialalnosci_nfosigw_w_2014_r.pdf)  
Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2015b), SPRAWOZDANIE z działalności Narodowego Funduszu Ochrony Środowiska i Gospodarki Wodnej w 2015 roku:  
[https://nfosigw.gov.pl/gfx/nfosigw/userfiles/files/life/sprawozdania/sprawozdanie\\_z\\_dzialalnosci\\_nfosigw\\_w\\_2015\\_r.pdf](https://nfosigw.gov.pl/gfx/nfosigw/userfiles/files/life/sprawozdania/sprawozdanie_z_dzialalnosci_nfosigw_w_2015_r.pdf)  
Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2016b), SPRAWOZDANIE z działalności Narodowego Funduszu Ochrony Środowiska i Gospodarki Wodnej w 2016 roku:  
[https://nfosigw.gov.pl/gfx/nfosigw/userfiles/files/o\\_nfosigw/sprawozdania\\_z\\_dzialalnosci/2016/sprawozdanie\\_z\\_dzialalnosci\\_nfosigw\\_w\\_2016\\_r\\_-\\_wersja\\_po\\_r\\_nad\\_i\\_uwagach\\_ms\\_do\\_uchwaly.pdf](https://nfosigw.gov.pl/gfx/nfosigw/userfiles/files/o_nfosigw/sprawozdania_z_dzialalnosci/2016/sprawozdanie_z_dzialalnosci_nfosigw_w_2016_r_-_wersja_po_r_nad_i_uwagach_ms_do_uchwaly.pdf)  
Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2017a), SPRAWOZDANIE z działalności Narodowego Funduszu Ochrony Środowiska i Gospodarki Wodnej w 2017 roku:  
[https://nfosigw.gov.pl/gfx/nfosigw/userfiles/files/o\\_nfosigw/sprawozdania\\_z\\_dzialalnosci/2017/sprawozdanie\\_z\\_dzialalnosci\\_nfosigw\\_w\\_2017\\_r..pdf](https://nfosigw.gov.pl/gfx/nfosigw/userfiles/files/o_nfosigw/sprawozdania_z_dzialalnosci/2017/sprawozdanie_z_dzialalnosci_nfosigw_w_2017_r..pdf)  
Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2018a), SPRAWOZDANIE z działalności Narodowego Funduszu Ochrony Środowiska i Gospodarki Wodnej w 2018 roku:  
[https://nfosigw.gov.pl/gfx/nfosigw/userfiles/files/o\\_nfosigw/sprawozdania\\_z\\_dzialalnosci/2019/sprawozdanie\\_z\\_dzialalnosci\\_nfosigw\\_w\\_2018\\_r..pdf](https://nfosigw.gov.pl/gfx/nfosigw/userfiles/files/o_nfosigw/sprawozdania_z_dzialalnosci/2019/sprawozdanie_z_dzialalnosci_nfosigw_w_2018_r..pdf)  
Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2019a), SPRAWOZDANIE z działalności Narodowego Funduszu Ochrony Środowiska i Gospodarki Wodnej w 2019 roku:  
[https://nfosigw.gov.pl/gfx/nfosigw/userfiles/files/o\\_nfosigw/sprawozdania\\_z\\_dzialalnosci/2020/sprawozdanie\\_z\\_dzialalnosci\\_nfosigw\\_w\\_2019\\_r..pdf](https://nfosigw.gov.pl/gfx/nfosigw/userfiles/files/o_nfosigw/sprawozdania_z_dzialalnosci/2020/sprawozdanie_z_dzialalnosci_nfosigw_w_2019_r..pdf)
- 39 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2016c), PROGRAM PRIORYTETOWY - Wskaźniki osiągnięcia celu, p.1:  
<https://www.hvacr.pl/public/article/attachment/01/718/programpriorytetowy-efektywnykorzystanieenergii-doplattydokredytownabudowedomowenergooszczednych.pdf>
- 40 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2016c), PROGRAM PRIORYTETOWY - Wskaźniki osiągnięcia celu, p.2:  
<https://www.hvacr.pl/public/article/attachment/01/718/programpriorytetowy-efektywnykorzystanieenergii-doplattydokredytownabudowedomowenergooszczednych.pdf>
- 41 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2016c), PROGRAM PRIORYTETOWY - Wskaźniki osiągnięcia celu, p.1:  
<https://www.hvacr.pl/public/article/attachment/01/718/programpriorytetowy-efektywnykorzystanieenergii-doplattydokredytownabudowedomowenergooszczednych.pdf>
- 42 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2016c), PROGRAM PRIORYTETOWY - Wskaźniki osiągnięcia celu, p.2:  
<https://www.hvacr.pl/public/article/attachment/01/718/programpriorytetowy-efektywnykorzystanieenergii-doplattydokredytownabudowedomowenergooszczednych.pdf>
- 43 European Commission, Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej & Związek Banków Polskich (2019b), Przesłanki włączenia banków do udziału w dystrybucji środków publicznych przeznaczonych na poprawę efektywności energetycznej. - okrągły stół dotyczący finansowania efektywności energetycznej w polsce:  
[https://ec.europa.eu/energy/sites/ener/files/documents/bmeluch\\_-\\_przeslanki\\_wlaczania\\_bankow\\_do\\_udzialu\\_w\\_dystrybucji\\_srodkow\\_publicznych.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/bmeluch_-_przeslanki_wlaczania_bankow_do_udzialu_w_dystrybucji_srodkow_publicznych.pdf)
- 44 Sławomir Kmieciak - PressDirector Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2016a), Koniec dopłat do kredytów na budowę domów energooszczędnych:  
<https://gramwzielone.pl/dom-energooszczedny/21876/koniec-doplat-do-kredytow-na-budowe-domow-energooszczednych>

- 45 Szydłowski. Kamil - Teraz Środowisko (2016a), Nikle zainteresowanie budownictwem pasywnym w Polsce:  
<https://www.teraz-srodowisko.pl/aktualnosci/Nikle-zainteresowanie-budownictwem-pasywnym-w-Polsce-2712.html>
- 46 Wojewoda-Leśniewicz. Katarzyna - Bankier.pl (2015a), Do 50 tys. zł dopłaty do budowy domu. Chętnych na razie niewielu:  
<https://www.bankier.pl/wiadomosc/Do-50-tys-zl-doplaty-do-budowy-domu-Chetnych-na-razie-niewielu-7268521.html>
- 47 Wielgo.Marek – wyborcza.biz (2016a), Domy energooszczędne bez dopłat. NFOŚiGW zamknął program po cichu:  
<https://wyborcza.biz/biznes/1,147758,20527889,nfosigw-zamknal-program-wsparcia-budownictwa-energooszczednego.html?disableRedirects=true>
- 48 Związek Banków Polskich (2014a), Domy Energooszczędne – program nabiera tempa:  
<https://www.zbp.pl/aktualnosci/Archiwalne-wydarzenia/domy-energooszczedne-program-nabiera-tempa>
- 49 Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (2020g), Program dofinansowania kredytów do domów energooszczędnych - jak to działa - Wady programu:  
<http://mieszkajenergooszczednie.pl/artykuly-prasowe/36-program-dofinansowania-kredytow-do-domow-energooszczednych-jak-to-dziala>
- 50 Związek Banków Polskich (2019b), Przesłanki włączenia banków do udziału w dystrybucji środków publicznych przeznaczonych na poprawę efektywności energetycznej. - okrągły stół dotyczący finansowania efektywności energetycznej w polsce:  
[https://ec.europa.eu/energy/sites/ener/files/documents/bmeluch\\_-\\_przeslanki\\_wlaczania\\_bankow\\_do\\_udzialu\\_w\\_dystrybucji\\_srodkow\\_publicznych.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/bmeluch_-_przeslanki_wlaczania_bankow_do_udzialu_w_dystrybucji_srodkow_publicznych.pdf)