## POLAND CATCHING-UP REGIONS

TOWARDS ROBUST, SCALABLE AND INCLUSIVE CLEAN AIR PROGRAM FOR ALL











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## ABBREVIATIONS AND ACRONYMS

**ASR** Anti-smog Resolutions **BGK** Bank Gospodarstwa Krajowego **BOŚ** Environmental Protection Bank **BPS** Polish Cooperative Bank **CAPP** Clean Air Priority Program **CuR** Catching-up Regions **CuRI** Catching-up Regions Initiative **EC** European Commission **EE** Energy Efficiency **EEEP** Energy Efficiency Expert Platform **EIB** European Investment Bank **EG** Energy Survey **GDP** Gross Domestic Product **GHG** Greenhouse Gas GPN Municipal Low Emission Plan (Gminny Program Niskoemisyjny) GoP Government of Poland **HBS** Household Budget Survey **MoCE** Ministry of Climate and Environment MoD Ministry of Development **MoF** Ministry of Finance MoFSP Ministry of Family and Social Policy NFOŚiGW National Fund for Environmental Protection and Water Management NOx Nitrogen Oxides PM<sub>2.5</sub> Particulate Matter (2.5 µm) **PV** Photovoltaic PIT Personal Income Tax **RE** Renewable Energy **SSP** Stop Smog Program **ROP** Regional Operational Program **SFBs** Single-Family Buildings SRSS Structural Reform Supporting Service TRF Thermo-modernization and Retrofit Fund **SO**<sub>X</sub> Sulfur Oxides WFOSiGW Regional Fund for Environmental Protection and Water Management **WB** World Bank **ZUM** Green Equipment and Materials List

#### **EXECUTIVE SUMMARY**

#### INTRODUCTION

The World Bank (WB) is supporting the Government of Poland (GOP) to develop further enhancements to the Clean Air Priority Program (CAPP), operated by the National Fund for Environment Protection and Water Management (NFOŚiGW) in order to ensure that the program is robust, scalable, and inclusive. This support includes formulating financial and operational schemes to support single-family building (SFB) owners to upgrade their heat sources and invest in thermo-modernization. With an estimated 4.3 million single family buildings in Poland, CAPP will need to augment its current formulation in order to serve most of these SFB owners within the program's 10-year implementation period.

The recommendations made in this report build on the wB's Catching-up Regions Energy Efficiency phase I and phase II (cur2 and cur3) reports, financed by the European Commission (EC). Phase I assessed that the most cost-effective way to reduce both particulate and co2 emissions is to combine heat source replacement with thermal retrofits in SFBS. It recommended elevated levels of financial support and scalable technical support to low-income households, and the integration of commercial banks into the program to provide SFB owner co-financing. The report of phase II proposed scalable operational and financial channels for low-, middle-, and high-income households that addressed bottlenecks identified in the first iteration of the CAPP program ('CAPP I.O', Sept. 2018–May 14 2020). It included recommendations for: (i) a simplification of the subsidy scheme; (ii) streamlining of the application process; (iii) introduction of a list of eligible equipment and materials; (iv) participation of commercial banks to strengthen co-financing and application processing; (v) development of program agents or 'operators' that could provide technical support to SFBS and aggregate demand, especially for those SFB households with less education and income that would need stronger support; and (vi) the inclusion of municipalities to help raise awareness of the health impact of high-emission solid fuel boilers and CAPP eligibility and procedures among their constituencies.

A multipronged reform to CAPP, effective since May 15, 2020, aimed to strengthen the scalability of the program, through extending financial and operational mechanisms, and addressing bottlenecks to achieving scale. Several notable adjustments to the program were integrated, including, but not limited to: the simplification of subsidy levels; simplification of the subsidy application; an updated list of eligible equipment and materials; acceleration of the application processing time; integration with the "My Electricity" program for rooftop solar photovoltaic (PV) systems; and, participation of commercial banks to provide loan financing to support CAPP investments. The simplified subsidy structure reduced the 14 different potential levels of support through the CAPP into 2 levels: basic, to cover higher income households, and elevated. The basic level of support (ranging from 30–45%) was available from May 15 2020. On October 21 2020, an elevated level of subsidy (Part 2) was launched, with support ranging from 60–75%. The launch of Part 2 put into place an important pending action from the May 2020 reform.

The revamped CAPP ('CAPP 2.0') has shown continued demand, despite the COVID-19 pandemic. However, the program needs to achieve a substantially increased rate of applications submitted and processed, if it is to reach its target of supporting three million SFBS undergoing boiler upgrades and thermo-modernization in the remaining eight years.

In the two years since CAPP was launched, it has received more than 172,700 applications for support (as of October 16, 2020) for PLN 2.904 billion (€ 629 million or US\$ 734 million) in subsidies, with an average subsidy funding request of PLN 16,814 (€3,642 or US\$ 4,251) over the entire period. Just

over 70,000 SFBs had completed or partially completed their investments during this time period. Although there has been an important demand trend for CAPP in the past two years, implementation must scale up to be able to at least double the completed work done in one year.

#### **KEY PROGRAM RECOMMENDATIONS**

Transitioning towards modern efficient boilers and thermal improvement will need key regulatory and policy support to ensure CAPP targets are achieved.

A set of critical policy and regulatory recommendations are advised to be developed, including the:

- (i) adoption of Anti-smog Resolutions (ASR) and strengthening of their enforcement in all regions (voivodeships) of Poland. In those regions with ASR deadlines for boiler standards fast approaching and large segments of the population that are unprepared, outreach and support for transition needs to be scaled up. A limited duration transition period at the request of the household structured to encourage the household could also be considered.
- (ii) consolidation of existing government programs and harmonization across income thresholds for anti-smog/thermal renovation programs. The existence of overlapping programs or different incentive structures makes it more difficult for households to ascertain where to obtain support, does not facilitate the decision to join CAPP and are likely to feed into delays in investments.
- (iii) formal structures to allow for regular and systematic coordination between various policies, programs, government entities, regional and local authorities. Enhancing governance mechanisms will help to resolve policy gaps that require coordinated action, ensure synergies and collaboration for reaching low emissions goals and facilitating the transition of low-income households.
- (iv) use of fiscal instruments to ensure that coal users face the societal cost of their fuel choices, and more broadly, to discourage coal use for SFBs. This could include stricter restrictions on those who can apply for eco-design coal boilers under CAPP and a phasing out of eco-design coal boilers for support. This should also be complemented by investment in alternative options, including but not limited to investment in the densification and expansion of gas networks where feasible and economically viable.
- (v) financial instruments that are needed to address the policy gap with respect to energy bill assistance for low-income sfbs, to compensate a possible increase in operational expenditures related to heating that will affect some low-income households. Current schemes to support energy bills do not reach low-income sfbs in a meaningful manner, which may delay the transition of segments of low-income households.

Program design and operational elements are also important for the sustainability and success of the program. These include:

- (i) incorporation of program 'operators' to support low-income SFB households under the low-income program;
- (ii) development of a CAPP online platform that consolidates all program information, facilitates interaction with implementation partners, and integrates program data;
- (iii) enhancement of the monitoring and evaluation system for CAPP; and
- (iv) enhancement of the existing program outreach, and trainings for implementation partners.

Furthermore, the financial capacity of municipalities to support the transition would need to be supported, to ensure that municipalities have the capacity to conduct inspections, enforce fuel and boiler standards and support the establishment of the emissions registry.

To be able to implement CAPP 2.0, there are still important operational changes that need to be in place by the first half of 2021, including the participation of commercial banks, updating the list of eligible material and equipment (ZUM list), the development of an integrated IT platform, etc. It is important that CAPP 2.0 is fully operational in the first half of 2021, so that the program leverages private-sector financing during the upcoming heating season and can be scaled up.

#### INTEGRATION OF COMMERCIAL BANKS

The participation of commercial banks as implementation partners is critical for program accessibility and uptake, given their ability to provide co-financing, strong distribution channels, extensive client base, and experience with retail loans. A 'one-stop-shop' approach has been recommended, where SFB owners can submit a CAPP subsidy application together with a loan request to participating bank branches, using digital forms through smartphones or tablets. The Polish Banking Association (PBA), commercial banks, and cooperative banks have actively engaged with the NFOŚiGW and the WFOŚiGWs to define the roles and responsibilities, as well as the operational processes, that would need to be in place to enable bank participation. This has involved assessing the legal aspects, processing and operationalizing communication protocols, ssimplifying and automatizing: of the CAPP grant application, introducing various tools to facilitate bank participation (e.g., ZUM list, calculators, communication materials), and providing clarifications on reporting and other procedures.

A Memorandum of Understanding was signed between NFOŚiGW and the PBA on April 30, 2020 that has enabled operational and legal aspects to move forward, such as the draft legal agreement between the NFOŚiGW, WFOŚiGWS and banks that is expected to be completed by the end of November. NFOŚiGW, the PBA, interested banks, and the Polish Development Bank (*Bank Gospodarstwa Krajowego* [BGK]) established five working groups to advance work to further the engagement. The first signed agreements between participating banks and the NFOŚiGW, WFOŚiGWS are expected in the first half of 2021. Participating banks would only then develop their IT systems, train their staff, establish sales targets, develop marketing material, and test all needed systems, to be able to launch the CAPP financial product before the summer of 2021, in time to support the next heating season. In order to launch the participation of commercial banks, IT works must also be completed by the NFOŚiGW and WFOŚiGWS.

Banks have since expressed their interest in having a guarantee instrument that could help lower the risks of financing, provide lower interest rates and loan tenures, and reduce the collateral requirements for creditworthy SFB owners seeking a loan under CAPP. A survey issued to the banks, to better understand the volume of the guarantee, found that respondents have estimated the CAPP loan portfolio to be about PLN 2 billion (about € 448 million or US\$ 530 million) lending a year, which would indicate, the needed loan portfolio (80%) to be guarantee to be of about PLN I.6 billion (about € 356 million or US\$ 422 million). Assuming a 10% loss ratio, it would represent a yearly collateralization of PLN I60 million (about € 35 million or US\$ 42 million). A portfolio guarantee was proposed by the BGK and the European Investment Bank (EIB). However, the banks expressed a preference for BGK's guarantee product, as EIB's product had a 25% cap on the 80% guaranteed portfolio that limited the capital relief. Opportunities are being explored to see if a counter-guarantee offered by EIB would be beneficial.

Discussions on the guarantee product were stalled since May 2020, while the approval of the needed legislative amendments to the Thermo-modernization and Retrofit Fund (TRF) was pending in order to establish the Ecological Fund for Sureties and Guarantees and for the NFOŚiGW to transfer financial resources to the BGK to cover the costs of the CAPP guarantee. The legal changes were approved in November and are expected to enter into the Journal Of Laws of the Republic

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Of Poland in December 2020. Thus, discussions on the guarantee are only now resuming. The next step recommended is to conduct an assessment of the actual loan portfolio that is to be guaranteed (i.e. those creditworthy SFB owners who would not be eligible for a loan without the guarantee), as well as the default risk of this specific group.

#### **LOW-INCOME PROGRAM**

The recommended implementation structure proposed for the low-income SFB households stems from various consultations, including discussions with municipalities (Kraków, Tuchow, Wielka Wieś, Ustroń, and Lublin), districts (*Powiats* of Cieszyński and Suski, and the Association of *Powiats*), Marshal's Office (Małopolska), wfośigw (Warsaw/Mazowieckie and Gdańsk), nfośigw, and the existing operators that have supported CAPP, SSP, or other municipally-led programs, as well as the various contractors that carry out boiler replacement and thermal renovations.

The low-income segment of the SFB households face two key challenges: (i) they would have significant difficulty financing the substantial investments that are required to upgrade their heat source and thermo-modernize their houses; and (ii) they are likely to require more hands-on engagement and support in making the transition to compliant technologies. Thus, this segment will need increased subsidy levels, as well as greater technical support to understand the program, fill in applications and select measures, oversee works and be able to complete the subsidy payment applications and required documentation. Furthermore, the SFB may be in a more dilapidated state, especially in terms of its structure, and may need increased technical support to determine if the SFB is sufficiently structural sound for the investments. They may also have a limited capacity to select and oversee the contractors' work once they have joined the program.

The operational capacity for supporting the low-income segment varies across municipalities, particularly in terms of co-financing and procurement capacity. Although in general municipalities were keen to support the existing ssp, they had reservations about assuming such responsibilities given their capacity and resource limitations.

A key principle for the proposed implementation scheme for low-income SFB households is the use of existing CAPP implementation structure as much as possible, with any program adjustments limited to the low-income component. This principle stems from the transfer of the ssp from the Ministry of Development to the Moce, to be operated by NFOŚiGW, following the amendment of the Act on Thermal Modernization and Renovation and some other Acts of Law. This transfer allows for the CAPP and the ssp to be integrated under one operational umbrella. It is important to note that, although the proposed model was discussed with relevant parties that in principle had a favorable opinion, it should be further discussed to reach consensus on the details of the implementation arrangements.

Given these challenges, a few adjustments are recommended to CAPP to be able to serve the low-income SFB households. Some of the suggested activities would involve additional costs, requiring funding to be allocated to the low-income program to support the more extensive implementing modalities. The GOP is seeking additional funding for CAPP including from the EC to help cover some of these additional costs. Suggested components of this support include:

- I. Outreach to engage households in the transition: Eligible households must have better access to information and support with applications, which could be provided by municipalities or by program operators that are able to explain the program, its eligibility criteria, application procedures, and other technical and procedural aspects. Social welfare workers or family assistance could also be drawn upon to serve as an outreach channel to their regular clients, who are potential beneficiaries of the low-income program, and can direct them to the needed support.
- 2. Hands on engagement to determine technical eligibility of the household and what investments are needed: Private advisors, hired as 'program operators' would be hired by the wfośiGws

to visit prospective SFB owners to discuss the program, CAPP offerings, eligible investments, and perform a simple onsite assessment to determine if the SFB would be eligible under CAPP and, if so, the most cost-effective measures that could be supported. Municipalities could also engage on these tasks if they have the capacity to do so.

- 3. Assistance in completing the application: The program operators would also assist owners to complete the application, including collecting the necessary supporting documentation. The low-income program would provide a list of interested contractors, which meet certain criteria agree to the follow the principals of reference pricing, from which the beneficiary could select. A list of potential criteria to establish this list of contractors has been included in Chapter 5 based on lessons from Krakow. The proposal on reference prices would need to be further assessed to ensure the legal basis and feasibility for establishing or verifying such reference prices by the NFOŚiGW.
- 4. *Higher grant subsidies*: To address financial constraints of low-income SFB households, the program would need to provide a higher subsidy amount.
- 5. Eligibility certificate mirroring Part 2 CAPP structures: The low-income program should mirror the verification and certification approach that has been put in place for Part 2 beneficiaries under CAPP 2.0. It should be noted that the certification process can be streamlined for some low-income households, since there are strong overlaps between the populations served by social assistance centers—through social welfare and family benefits—and the intended beneficiaries of the low-income program. This overlap can be used to streamline municipality tasks for producing the certificate of program eligibility since an SFB owner could be certified as eligible for the low-income program if they are already beneficiaries of social assistance or family benefits, who have already been subject to income verification.
- 6. Controls to avoid non-viable investments or elevated contract prices: The upfront on-site assessment and reference prices for contractors on the list established by NFOŚiGW would ensure that, given the higher subsidy level, controls are introduced to prevent nonviable investments or high contract prices. It is important to note that operators, who would support outreach, application submission, structural diagnostics and technical assessments (hired by the WFOŚiGWS under a service contract), and contractors, who would conduct the investment (hired by the SFB owner), are separate entities.

The key roles of the implementing entities NFOŚiGW, WFOŚiGWS, and municipalities (gminas) would remain the same as in CAPP, with additional responsibilities to serve the low-income segment. Some of the additional responsibilities that are proposed would result in additional costs and workload for the implementing entities, for example the engagement of wfosigw with respect to private operators. Additional funding for these activities would need to be allocated to support appropriate implementation. NFOŚiGW and the 16 WFOŚiGWs would remain responsible for the overall implementation of the low-income program; while the municipalities would continue to support the program implementation, mainly through outreach and income verification; and the contractors would be hired by the SFB-owners to replace boilers and carry out thermal renovations. The existing energy advisors would continue in their role of advising SFB owners and training social assistance workers and eco-advisors employed by the municipalities, thus building their capacity to conduct outreach for the program. In addition, the wFosiGws would hire the operators to support a range of additional program implementation activities (increased outreach, support completion of applications, structural diagnostic, and technical assessments), and NFOSiGW would offer training to interested contractors to help build their capacity, increase the quality of works, and develop their knowledge about CAPP procedures. This training started in 2020 through the Clean Air Academy and should be continued to further support market development. The proposed implementation structure is summarized in the Figure E.1 below and will need to be further elaborated with key stakeholders, ideally through another phase of the Catching-up Regions Initiative.

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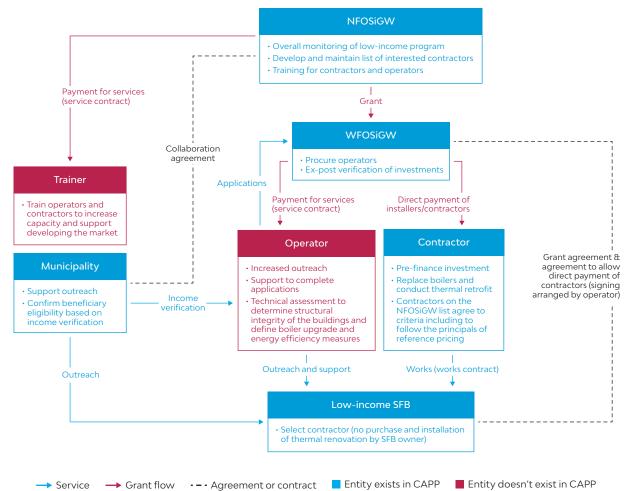


FIGURE E.1 Implementation structure for the low-income segment

**NFOŚIGW** would continue to be responsible for the overall program coordination and monitoring, and the development of all program rules, guidelines, and procedures, including: SFB and equipment eligibility criteria; overall coordination of energy advisors; overall program communications and application platforms; and program monitoring, oversight, evaluation and reporting. In addition, NFOŚIGW would:

- Develop and maintain a list of interested contractors to carry out boiler replacements and thermal renovations under the program. To develop and maintain this list, NFOŚiGW would conduct an outreach campaign to contractors and ask them to submit applications to be included on the list of contractors. NFOŚiGW would review and approve applications on a continuous basis or at regular time intervals. In case issues arise with a contractor during program implementation, such as inadequate quality of work, NFOŚiGW may remove a contractor from the list. It is suggested that NFOŚiGW integrates the list of interested and pre-qualified contractors with the Energy Efficiency Experts platform, which is currently under development and hosted by NFOŚiGW. SFB owners may hire contractors from this list, but should be free to hire contractors that are not on the list. It should be noted that this proposal would need to be further assessed from a timing and feasibility perspective, as the Energy Efficiency Experts Platform continues to be developed and piloted.
- Procure trainers through a service contract to develop and conduct trainings for operators and contractors as described in the previous sections. It is suggested that the trainings for operators and contractors could be combined with, and organized through, the planned Energy Efficiency Expert training platform—subject to the successful pilot and uptake of this platform.

• Enter into collaboration agreements with the municipalities to define their responsibilities in supporting awareness raising and confirming beneficiary eligibility based on an income check.

**wfośigws** would continue to be responsible for the reception and processing of program applications; the provision of technical support through energy advisors on CAPP to the municipal staff and SFB households; disbursement of grant payments against eligible expenses; *ex-post* inspections and oversight; and reporting to the NFOŚiGW. In addition, the WFOŚiGWS would:

- *Hire private sector operators* through a service contract for outreach to beneficiaries, support to complete applications, structural diagnostic to determine technical eligibility of buildings, and technical assessment to define measures.
- Make direct payments to contractors on behalf of SFB owners upon approval of payment applications from the contractor.

**Municipalities** would continue to serve as local points of access for SFB owners and to provide program information to potential applicants. The role of the municipalities would be strengthened in the low-income program as they would:

- *Maintain a service desk* at the municipalities' offices. If the respective municipality has a sufficiently high capacity, it may assume the responsibility for some of the outreach activities, including the tasks of the operators; if its capacity is lower, it may rely more on private sector operators.
- *Conduct income verification* to confirm the eligibility of the beneficiary and send this verification to the operator.

**Operators** have the potential to be important new program-implementing partners for the low-income program. Several operators are currently active in Poland that offer services ranging from advising on energy efficiency measures and conducting technical assessment, to verifying and inspecting installations under different programs. In the proposed scheme operators would:

- *Carry out more customized outreach activities* targeting low-income sfb households to increase awareness, provide information, and answer questions related to the low-income program.
- Support potential beneficiaries with completing applications, either in person during SFB visits or at workshops at the municipalities' premises. Operators would collect the signed applications and required documentation from SFB owners, conduct a precheck of the applications, and reach out to the applicant to help correct any errors before they send the applications to the WFOSiGWS.
- *Conduct structural diagnoses* of the SFBs and technical assessments of which measures (i.e., boiler replacement, thermal renovation measures) are recommended and which materials in the ZUM list should be purchased.

**Trainers** would provide regular training materials over the duration of the program for: (i) interested operators about program procedures and criteria, with a focus on the application process, outreach activities to be performed under the program, structural and energy diagnostics of SFBs, past errors and lessons; and (ii) interested contractors about general program procedures and requirements, as well as good practice in work related to boiler replacement and thermal renovation in SFBs, including providing standard details, guidance notes, etc.

**Contractors** selected by the SFB owners to conduct the work would pre-finance the investment cost and implement the boiler replacement and thermal renovation. Cost constraining mechanisms such as reference pricing should be implemented to ensure resources are efficiently used. All contractors that participate in the program would be expected to follow the principals of reference pricing.

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**Low-income SFB owners** would be encouraged to select and hire a contractor from the list maintained by the NFOŚiGW to carry out the boiler replacement and thermal renovation, although it would not be mandatory to select a contractor from that list. SFB owners would not be allowed to purchase and install materials and equipment on their own (as opposed to CAPP, under which this is allowed).

## FURTHER TECHNICAL SUPPORT IS NEEDED TO CONTINUE TO DEVELOP THE LOW-INCOME SCHEME AND PUT IN PLACE CAPP PROGRAM ELEMENTS

A next phase of technical support is recommended to develop a detailed design of the low-income scheme, including public consultations, and enhance the overall CAPP elements to ensure an increased implementation pace. Although the proposed operational and financial scheme for the low-income segment of SFB households has been discussed and validated with various key stakeholders, further design work is still needed to ensure it can be implemented. A simplified application for the low-income segment, which could mirror the current CAPP application, will need to be developed. Detailed draft agreements among the different parties defining their roles and responsibilities in the low-income program will be required. Prequalification requirements, draft contracts, and training materials for program operators and contractors, will also need to be developed. Moreover, the CAPP program will need to enhance its monitoring and evaluation systems, including a centralized program management information system that brings together key information from applications and grant payment execution from WFOŚiGWS at appropriate levels of regional disaggregation. Similarly, an extended communications and outreach campaign and resulting strategy targeting attitudes, behaviors to reach major stakeholders is a crucial element to develop to ensure program demand, and should be included as part of the next phase of technical support. The support could also include support to monitor and consult on impacts and feedback by social groups, including social surveys that include gender and income indicators.

CHAPTER 1

INTRODUCTION

Air quality in Poland is under considerably national and international scrutiny. Poland has made considerable progress in reducing air quality pollutants such as so2 and NOX. However, exceedances of limit values of coarse and fine particulates (PMIO and PM2.5 respectively) and benzo[a] pyrene in the winter season remain a serious problem, despite observed reductions in the emission of particulate matter precursors¹. Annual ambient concentrations of PM2.5 in Polish cities often exceed the maximum levels allowed under EU law and the more stringent World Health Organization (WHO) air quality guideline value (25 micrograms per cubic meter of air, µg/m³ and 10 µg/m³ respectively)². Poland has 36 of the 50 cities with the highest annual mean concentration of fine particulate matter in the EU³. In the air quality assessment of 2017 conducted by GIOS, concentration levels above the permissible levels were noted in 34 of the 46 zones in Poland, using assessment based on 24-hour concentrations⁴. Fine particulate matter is one of the most relevant pollutants linked to health problems and premature mortality⁵. PM2.5 has been shown to cause disease and death associated with lung cancer, chronic obstructive pulmonary disease, ischemic heart disease, stroke, respiratory illness⁶.

Residential buildings, and among them single-family buildings (SFBS), represent one of the largest contributors to ambient air pollution. The residential sector is the largest source of ambient PM2.5 pollution in most areas in Poland<sup>78</sup>. The burning of polluting solid fuels such as coal, coal wastes, biomass and wastes for heating purposes in small, inefficient boilers and individual stoves in households is the main source of ambient PM2.5 pollution.<sup>9</sup> Approximately 85% of SFBS rely on solid fuels as their main fuel for heating, including coal and biomass, poor-quality coal wastes and other waste<sup>10</sup>. As such, supporting SFBS to use cleaner and more energy efficient heating sources has the potential to contribute toward: (i) improved ambient air quality; (ii) the 2020 primary energy consumption targets; (iii) a reduction in energy poverty, if appropriately financed and phased.

The Government of Poland (GOP) has shown its commitment to addressing emissions from low-stack air pollution, including through the launch of the Clean Air Priority Program (CAPP), launched in September 2018, and the Stop Smog Program (SSP). In September 2018, the GOP launched the CAPP—a PLN 103 billion (€ 24 billion), 10-year initiative aimed at reducing low stack emissions. Implemented by the National Fund for Environment Protection and Water Management (NFOŚiGW), the CAPP has the specific objective to "improve the energy efficiency of existing single-family housing resources through thermal modernization and upgrading of heating furnaces." The program deploys a system of subsidies, tax incentives, and targeted loans to help nearly three million SFB owners to replace their solid fuel boilers and conduct thermal retrofits. In December 2018, the Government of Poland (GOP) amended the act supporting thermo-modernization and renovation to create the SSP to support low-income SFB households, with a target to reach 23,805 SFB households by the end of 2024<sup>12</sup>.

However, to date the application and implementation pace in both programs has been insufficient to reach the target of replacing 3 million SFB inefficient heat sources by the end of 2029<sup>13</sup>. As of October 16, 2020, CAPP had received more than 172,700 applications for PLN 2.904 billion (€ 629 million, US\$ 734 million) and 54,863 SFB retrofits had been completed. Between May 2019 and October 2020, on average each month 7,000 applications were submitted and 7,450 applications signed. There has been constant demand for the program since early 2019 and demand has been relatively unaffected by the COVID-19 pandemic. However, CAPP would need to serve at least 25,000−30,000 SFBS/month in order to meet the target within the 10-year program period.

Several strands of reform are underway in both CAPP and SSP that aim to increase the application pace and to resolve blockages faced by households. This includes the transfer of SSP from the MOD to MOCE, to be operated by NFOŚiGW, which allows for the CAPP and SSP to be brought under one operational and implementation structure. These reforms would also allow for CAPP funds to be used to establish a portfolio guarantee mechanism under BGK to support the entry of commercial banks into the CAPP. Other changes have allowed CAPP's application to be simplified, outreach efforts to be initiated by MOCE in partnership with NFOŚiGW, and a range of tools to assist SFB owners with the application and implementation (e.g., updated list of eligible material and equipment, insulation calculator, energy savings calculator, etc.).

This report is the third produced by the World Bank, under the framework of the European Commission's (EC's) Catching-up Regions Initiative (CURI) to reduce air pollution through improved energy efficiency heating systems and thermal renovations in SFBs. It summarizes a combination of policy dialogue and technical assistance given with the ambition of supporting the establishment of a robust, scalable, and inclusive operational program to support SFBs in undertaking heat source replacement and energy efficiency (EE) thermal retrofits. The recommendations made in this report are based on analyses and extensive consultations with the NFOŚiGW, the MOCE, MOD, and MOFSP, the Regional Funds for Environmental Protection and Water Management (WFOŚiGWS), regional and local governments, including Marshalls' Offices, districts (powiats) and municipalities (gminas), the European Commission (EC), the banking sector in Poland, and installers and contractors.

The report is divided into two parts. The first part of the report provides an overview of the overall context, including an overview of progress in the two programs to date. The second part of the report goes into specific recommendations and summarizes the progress thus far on the incorporation of commercial banks, and the support provided to reach the implementation of the revamped CAPP, as well as the proposed scheme for a low-income scheme that can help revamp the SSP.

## OVERVIEW OF THE CLEAN AIR PRIORITY PROGRAM (CAPP PROGRAM)

The Clear Air Priority Program (CAPP) was launched by the GOP in September 2018 as a 10-year program with a budget of PLN 103 billion. CAPP is designed to be managed and operated by the NFOŚiGW, with the sixteen WFOŚiGWs serving as implementing agencies. CAPP would also be complemented by the Retrofitting Tax Allowance (tax relief) that was introduced in December 2018. CAPP uses partial subsidies and tax relief to support SFBs in Poland to thermally retrofit their homes and replace outdated and inefficient heating systems with more efficient ones relying on cleaner fuels.

The objective of CAPP is to improve air quality and reduce greenhouse gas (GHG) emissions by exchanging heat sources and improving energy efficiency in SFBs<sup>14</sup>. The program was designed to support SFBs in Poland to thermally retrofit their homes and replace heat sources that are inefficient, do not meet building codes, or are not compliant with anti-smog resolutions (in regions of Poland which have passed such resolutions). The program includes the financing of efficient eco-design coal boilers that comply with EU eco-design regulations, as well as gas and pellet boilers, and heat pumps. Since January 2020, CAPP is only eligible to existing SFBs.

The Program is managed by NFOŚiGW under the MOCE, and implemented through the 16 regional WFOŚiGWS in the following way:

- NFOŚIGW is responsible for: (i) overall program coordination and implementation; (ii) development of all program rules, guidelines, and procedures, including SFB and equipment eligibility criteria; (iii) developing financing agreements with the regional WFOŚIGWS; (iv) program application and the centralized website informing potential beneficiaries of CAPP, tax relief and SSP; (v) program monitoring, oversight, evaluation and reporting; and (vi) financial mobilization, management, and disbursements to WFOŚ.
- The 16 wfośigws are responsible for: (i) receipt and processing of applications from beneficiaries; (ii) disbursement of grant payments against eligible expenses; (iii) communication platforms (beneficiary platforms) (iv) ex-post inspections and oversight; and (iv) reporting to Nfośigw. Operating under a financing agreement with Nfośigw, each wfośigw enters into subsidy agreements with the eligible beneficiaries (i.e., SfB owners). The wfośigws also maintain cooperation agreements with the participating banks and municipalities. The wfośigws typically establish a CAPP unit with 15 to 30 full-time staff responsible for its implementation and may have three to four staff (energy advisors) to deal with applications that move through

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the region's locations. The municipalities serve as the local points of access for SFB owners and provide them with information about the program. As of October 9<sup>th</sup>, 2020, 711 municipalities had signed agreements with NFOŚiGW for CAPP implementation.

#### "CAPP 2.0"

Since the program's inception in 2018, CAPP has undergone various adjustments, with the most significant under implementation since on May 15, 2020 ("CAPP 2.0"), with the aim of improving and accelerating its implementation mechanism. Many of the changes introduced followed the wb's recommendation under the Catching-up Regions Initiative, Energy Efficiency, Phase 3 (Curs) work. The revamped CAPP 2.0 was adjusted to include: (i) simplification of the subsidy levels; (ii) simplification of the grant application process and the acceleration of the processing time (for example, online applications, only an income statement declaration is required for the basic level of subsidy, processing time for applications reduced to 30 days, and so on); (iii) integration with the 'My Electricity' program to provide subsidies for solar rooftop systems under one application; (iv) possibility of receiving subsidies for thermal renovation for beneficiaries that have already replaced their heating systems; and (v) retroactive subsidies for investments initiated up to six months prior to application submission. However, further advancement on multiple elements of CAPP 2.0 is still ongoing and is expected to be fully operational only in the first half of 2021 with the participation of commercial banks.

Under CAPP 2.0, an eligible beneficiary is a natural person that: (i) is the owner or co-owner of an existing SFB (including semi-detached and terraced buildings), and (ii) has an annual income not exceeding PLN 100,000<sup>15</sup>. In the case of SFB co-owners jointly earning more than PLN 100,000, then the income declaration of only one owner applying to the CAPP program would be taken into consideration. Applications can be submitted by beneficiaries on a continuous, year-round basis.

The level of subsidy was simplified and will be provided for each eligible cost item listed in Appendix 2 of the beneficiary facing program manual <sup>16</sup>. The maximum grant amount is capped through both an absolute maximum grant level and a maximum percentage of the incurred costs. The program foresees two levels of subsidy:

- (i) Basic subsidy level (Part I; up to 100% of costs of energy audit; up to 50% of costs of connection to district heating and solar rooftop installations; up to 45% of costs of heat pumps, wood pellet boilers of higher energy efficiency standards, and gas connection/boiler room; and up to 30% of other costs, including eco-boilers) for applicants with an annual salary of up to PLN 100,000
- (ii) Increased level of subsidy (Part 2; up to 100% of costs of energy audit; up to 75% of costs of connection to district heating and gas connection/boiler room; up to 50% of costs of solar roof-top installations; up to 60% of other costs including: eco-boilers for households with a net monthly income of up to PLN 1,400 per person (for multi-person households), or up to PLN 1,960 per person (for one-person households) The increased level of subsidy (Part 2) is operational and was launched on October 21, 2020.

Legislative changes and agreements with municipalities were approved for the increased level of subsidy (Part 2) under CAPP 2.0. SFB applicants will need to provide an income certificate issued by the municipality to prove eligibility for Part 2, which will allow them to receive higher subsidy levels. Municipalities are likely to draw upon the support of social assistance centers, utilizing existing verification approaches and information systems to issue income certification. The NFOŚIGW would transfer up to PLN 100 payment per each application submitted through a municipality, accompanied by an income certificate. To enable municipalities to issue these income certificates, amendments of the environmental protection legislation and supporting regulations have been completed. Agreements with the municipalities are required, so that the municipalities can be remunerated for applications with income certificates, and Part 2 SFB beneficiaries could have access to loans granted by the municipalities that would be financed by WFOŚIGW/NFOŚIGW.

The eligible costs under CAPP include the cost of investment preparation, replacement of heat source, connections, installations, and ventilation, as well as thermal retrofits of SFBS as described below.

- *Cost of investment preparation:* Energy audit, project documentation/design, and ornithological and chiropterological survey (assessment of impact of thermal renovation on bat and bird habitats located under the roof of retrofitted buildings). These are not required expenses but are permittable expenses.
- Cost of replacement of heat source, connections, installations, and ventilation: Connection to district heating; replacement of old boiler by a heat pump, gas condensing boiler, oil condensing boiler, coal boiler, wood gasification boiler, wood pellet boiler, or electric heating; gas connection and internal installations; central heating installation and hot utility water installation; mechanical ventilation with heat recovery; and PV micro-installation.
- Cost of thermal retrofit of SFBs: building insulation, windows, and doors.

CAPP also includes certain conditions related to the selection of a solid-fuel boiler and the dismantling of the old boilers. If an investment under the program includes replacement of the heat source, the old boiler must be dismantled and scrapped according to the Polish environmental regulations. If an SFB is connected to the gas distribution network, then a solid fuel boiler (eco-boiler or pellet boiler) is not eligible to be funded under CAPP, and the household must use a gas boiler or heat pump as a replacement.

To measure progress towards the objective, CAPP 2.0 has established the following indicators:

- Number of buildings with improved thermal performance (target: 3,030,000 units)
- Number of inefficient heat sources replaced for efficient, low emission heat sources in residential buildings (target 3,000,000 units)
- Additional electricity generation capacity from installed photovoltaic (PV) micro-installations (target: 50 MWe)
- Reduction of final energy consumption (target: 37,500,000 MWh/year)<sup>17</sup>
- Reduction of dust emissions with a diameter of less than 10 micrometers (PM10; target: 210,000 Mg/year)
- Reduction of benzo[a]pyrene emissions (target: 140 Mg/year)
- Reduction of CO2 emissions (target: 14,000,000 Mg/year)

#### OVERVIEW OF TAX RELIEF

The GOP complements CAPP through a tax relief to owners and co-owners of renovated SFBS, which is managed by the Ministry of Finance (MOF) and uses their treasury resources. The GOP has amended the law on Personal Income Tax (PIT) to introduce a "retrofitting tax allowance," which became effective in January 2019.

The tax relief enables an applicant to subtract up to PLN 53,000 spent on retrofitting investments from their PIT base. The SFB applicant benefits from not paying tax on the deducted amount; thus, this benefit is larger for individuals with higher income facing higher rates of marginal tax. The tax relief can be used by taxpayers filing their taxes according to the tax scale (17 or 32%), taxpayers paying a flat rate of 19%, and taxpayers that pay tax through a lump-sum from registered revenues. Farmers whose income is covered by the agricultural tax cannot benefit from this tax relief.

The deduction is available on condition that the thermo-modernization project is completed within the period of up to three consecutive years counting from the end of the tax year, in which the first expenditure was incurred. This condition is aimed at encouraging taxpayers to implement the thermos-modernization project quickly, which is to produce a faster effect in the improvement of the air in Poland.

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For the 2019 tax year, deductions from income (revenue) of expenses for the implementation of thermo-modernization projects were claimed by 207,418 taxpayers for a total amount of PLN 3,134 million (€ 701 million or US\$ 829 million).

#### OVERVIEW OF STOP SMOG PROGRAM

In December 2018, the GoP amended the act supporting the Thermo-modernization and Retrofit Fund (TRF) to create the Stop Smog Program (ssP) to support low-income sFB households, with a target to reach 23,805 SFB households by the end of 2024. Under this act, the Ministry of Development (MOD) through the TRF (managed by the Polish Development Bank, Bank Gospodarstwa Krajowego, [BGK]) provides municipalities with financial resources to implement boiler replacement and thermal retrofit investments for the 'energy poor'. The TRF provides grants for up to 70% of the eligible costs (capped at PLN 53,000), the municipality finances 30% of the eligible cost, and the beneficiary contributes 0–10% depending on its income capacity, however it cannot decrease the municipality's share (beneficiaries' contribution can be used for additional costs above 53,000 or other e.g. technical support). The role of municipalities envisaged under the SSP is as an applicant, investor, and recruiter of program beneficiaries.

Substantial progress is needed to support for the estimated 1.1m<sup>19</sup> low-income SFB households. As of October 2, 2020, seven municipalities<sup>20</sup> covering 1,027 SFBs have joined the SSP, and no investments have been completed. The responsibility for SSP is expected to be transferred from the MOD to the MOCE and to be operated by the NFOŚiGW. This transfer requires legislative changes to the act supporting the TRF; the draft amendment was adopted by the Council of Ministers on August 7, 2020 and the amendment was signed by the President on November 13. The Act will become effective from the 1<sup>st</sup> of January 2021.

A number of updates have been incorporated into the SSP to encourage further participation by municipalities, most notably:

- (i) Reduction in the share of SFBS that need to be covered in one application wave, from two percent to one percent of SFBS within the municipality, or 20 SFBS;
- (ii) Reduction of heating demand from 50% to 30% of final energy (as per article 2 point 7 of the Energy Efficiency Act) that can be calculated jointly for all low-emission SFB projects within a single agreement;
- (iii) Reduction on the municipalities' and beneficiaries' liability period from ten to five years after the termination of the SSP agreement;
- (iv) Allowing the possibility of low-carbon projects also in SFBs that are part of the municipality housing stock;
- (v) One-year income calculation based on a net income concept to define eligible SFB households;
- (vi) Amendments to the conditions of eligibility: shift in asset criteria, from PLN 424,000 of moveable and immoveable wealth to PLN 53,000 of moveable wealth. The introduction of a criminal liability clause for making false statements with respect to income and property;
- (vii) Abolishing the obligation for local governments to draw up low-emission programs;
- (viii) Introduction of no-procurement mode for municipalities (grant for beneficiaries).

#### **NOTES**

- GIOS, 2018."Condition of the Environment 2018, Report on Poland" Environmental Monitoring Library Warsaw.
- 2. World Bank, 2019. "Air Quality Management in Poland, Final Report".
- 3. World Health Organization, 2018. who Global Ambient Air Quality Database (update 2018).
- 4. GIOS, 2018."Condition of the Environment 2018, Report on Poland" Environmental Monitoring Library Warsaw.
- 5. In Poland, 46,300 premature deaths in 2018 were attributable to PM2.5 exposure according to the European Environment Agency, while 1900 and 1500 were attributed to NO2 and 03 exposure (EEA, 2020). Poland disproportionately contributes to the number of premature deaths attributed to PM2.5 and 03 exposure in the EU-28, accounting for 12.2% and 7.8% of all premature deaths while only accounting for 7.5% of the population; it however less than proportionately contributed to 3.5% of all EU-28 deaths from NO2. A 2019 World Bank report estimated that the cost of ambient air pollution amounts to about USUS\$31-40 billion, equivalent to 6.4-8.3% of the GDP in 2016.
- 6. European Environment Agency, 2019 "Healthy environment, healthy lives: how the environment influences health and well-being in Europe" EEA Report No 21/2019.
- 7. World Bank, 2019. "Poland Air Quality Management, Final Report". The analysis in this report suggests that existing national inventories likely underestimate emissions from this sector.
- 8. GIOS, 2018." Condition of the Environment 2018, Report on Poland" Environmental Monitoring Library Warsaw.
- 9. It should be noted that excess quantities of fine particles can occur under certain meteorological conditions, such as upon the occurrence of inversion layers. In addition, in four zones, there is also excess levels of nitrogen dioxide caused by the transport sector. Detailed analysis of air quality, including contributing factors and measures to alleviate the issues can be found in the National Air Protection Program and in Regional Air Protection Programs.
- 10. World Bank (2018).

- 11. http://czystepowietrze.gov.pl/wp-content/uploads/2020/04/ Program-Priorytetowy-Czyste-Powietrze.pdf
- 12. The Stop Smog Program was officially launched within the framework of the Act of 6 December 2018 on the amendment of the Act on support for thermal refurbishment and renovations and certain other acts (Journal of Laws of 2019, item 51), which constitutes the legal basis for enacting and financing the Program, having entered into force on 11 February 2019.
- 13. http://czystepowietrze.gov.pl/wp-content/uploads/2020/04/ Program-Priorytetowy-Czyste-Powietrze.pdf
- 14. http://czystepowietrze.gov.pl/wp-content/uploads/2020/04/ Program-Priorytetowy-Czyste-Powietrze.pdf
- Before May 15th 2020, those with an annual income not exceeding PLN 125,528 were not eligible to apply for CAPP. Also, until December 2019 CAPP included new SFBS.
- 16. https://czystepowietrze.gov.pl/do-pobrania/
- 17. If the CAPP target for reduction of final energy consumption was divided by 3 million SFBs, it would amount to 12,380 kwh annual energy savings per building. For an average building size of 130 m² it would require a reduction of final energy consumption by 95 kwh/m², which is a very challenging objective and cannot be achieved in buildings in which only the heat source is replaced without any improvements in the energy performance characteristics of the building envelope.
- 18. The current program's target is limited by the overall ssp budget of PLN 883.2 million of fiscal budget.
- 19. In the low-income segment, it is estimated that about Im SFBS require an upgrade, of which 0.6m require a boiler replacement and thermal retrofit and 0.5m require only a boiler replacement. This estimate is derived from analysis using the 2018 Energy Survey from Statistics Poland and the 2018 HBS. It is likely that those reporting full insulation who we consider to only require a boiler upgrade may require additional thermal modernization.
- 20. These municipalities are Skawina, Sucha Beskiszka, Pszczyna, Niepołomice, Tuchów, Sosnowiec, Rybnik. The total amount of financing for these 7 municipalities amounted to PLN 54.4 million, including PLN 37.4 million from the state budget.

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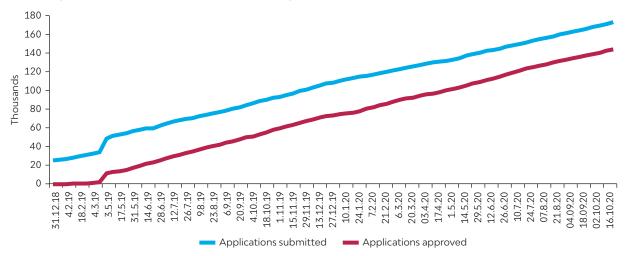
**CHAPTER 2** 

**CAPP PROGRESS** 

#### **APPLICATIONS SUBMITTED, PROGRESS TO DATE**

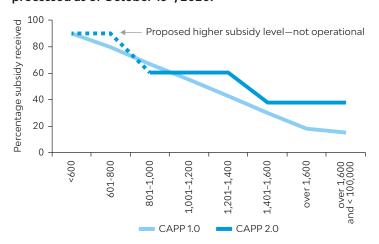
As of October 16, 2020, CAPP has received more than 172,700 applications for PLN 2.904 billion (€ 651 million or US\$ 787 million) of grants, with PLN 387 million (€ 84 million or US\$ 98 million) of loans, and 143,700 co-financing agreements for PLN 2.513 billion (€ 434 million or US\$ 544 million) of grants. As shown in Figure 2.1, demand has continued at a fairly continuous pace since May 2019.

**FIGURE 2.1** Comparison of old versus updated rates (without tax relief) — share of PLN 53,000 covered assuming thermo-modernization and switch to gas stove



Note: The dotted line signals that a subsidy level of 90% is proposed for those in the low-income group, defined here as those whose income falls below PLN 800 per household member in a multi-person household (or under 1,120 PLN in a single-person household) or who receives certain social assistance programs, explained in greater detail below. The figure shows the subsidy level received by a household with two or more members.

**FIGURE 2.2** Number of CAPP applications received and processed as of October 16<sup>th</sup>, 2020.



Source: World Bank analysis of application data received as of October 16, 2020 from NFOŚiGW.

The subsidy support given under CAPP 2.0 has increased compared to CAPP 1.0, driven in large part by higher support to Part 1 beneficiaries (middle-high- and high-income segments), while the proposed level of support for middle-low SFB household remains broadly the same¹. The WB estimates that the costs of the subsidy component of the program would rise significantly (under the simplified assumption that households switch to either gas or heat pumps), while the estimated tax relief that would be withdrawn would decline. Further detail is provided on the assessment of subsidy levels in Annex 7.

The pace of applications among those covered by the program has increased under CAPP 2.0, although not visible in the figures, due to a shift in the share of households that are covered under the operating structure after May 2020.

While this is an accomplishment, it also emphasizes the importance of the launch of the Part 2 support from October 2I 2020 and the urgent need to establish higher subsidy levels for low-income SFB households in order to meet the program's goals. Between May I5, 2020 and October I6, 2020, 33,387 applications were submitted under CAPP 2.0—amounting to 1,518 applications per week. In comparison, I,66I applications per week were received under CAPP I.0 (in the year prior to May I5, 2020). Since only higher-income households were able to apply to CAPP 2.0 between May I5, 2020 and October I6, 2020, the reform can be considered to have increased the number of applications received from the higher-income segment. The applications received per week from this segment have more than doubled in volume, from 666 per week under CAPP I.0, between May 2019 and May 2020, to 1518 under CAPP 2.0.

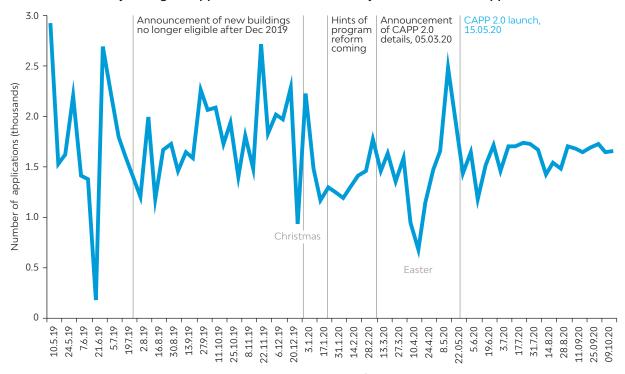
TABLE 2.1 Applications received per week and grant requests, CAPP 1.0 and CAPP 2.0

	CAPP 1.0 (May 2019 – May 2020 for 1 and 2)	CAPP 2.0 (May 15th – October 16th 2020)
1. Applications received per week	1,719	1,518
2. Of which (% of all applications received)		
2.1 PLN 1400 plus group	666	1,518
2.2 PLN 1000 - 1400 group	616	_
2.3 PLN <1000 group	778	_
3. Total request per application	21,121	10,431
3.1 Of which grant request	18,349	10,431
3.2 Of which loan	2,774	

Source: World Bank analysis of application data received as of October 16, 2020 from NFOŚiGW.

Application submissions have reflected responses to announcements of shifts in program design, as well as to actual changes. This responsiveness must be considered in the management of future reforms. Figure 2.3 shows in more granular detail the ebbs and flows in application submissions. In 2019, the weekly pace of applications increased after the announcement that new buildings would no longer be eligible for program support after December 31, 2019. In total, 34,711 applications for new buildings were submitted by the end of 2019. Applications rose sharply prior to the launch of CAPP 2.0, likely because households who considered themselves financially better placed under CAPP 1.0, strove to submit their applications.

FIGURE 2.3 Weekly average of applications submitted and key dates that shifted applications received



 $\textit{Source:} \ \textit{World Bank analysis of application data received as of October 16, 2020 from NFO SiGW.}$ 

A disproportionate share of applications was received in the low-income group under CAPP I.O, while middle-income applicants were underrepresented. In particular, applications received in the under PLN 600 group were twice the expected population figure (captured in the Household Budget Survey (HBS)) while the share of applications received from the PLN I,000–I,600 group was lower than would have been expected (Figure 2.4). The higher than anticipated share of low-income households can be seen across all regions, but is particularly pronounced in the Lublin, Warmińsko-Mazurskie,

Podkarpackie and Świętokrzyskie regions. The higher share of the lowest-income households could be interpreted through the lens of meeting the financial support needs of these households through a 90% subsidy, but could also reflect inclusion errors (type I) whereby nontarget beneficiaries are able to provide income documentation that makes them appear eligible for the program<sup>2</sup>. In contrast, higher-income households—those earning about PLN I,400 net per SFB resident per month—have applied in a percentage proportionate to their estimated population share. Given the lower than expected demand among middle-low income applicants, this group may need particular focus in the future to ensure that subsidy levels are appropriately calibrated.

National By voivodeship: share below PLN 800 By voivodeship: share above PLN 1,400 40 70 70 35 60 60 30 50 50 25 Percent 40 40 20 30 30 15 20 20 10 10 10 5 lubelskie fódzkie świętokrzyskie małopolskie podkarpackie ślaskie świętokrzyskie kujawsko-pomorskie małopolskie mazowieckie opolskie podkarpackie podlaskie pomorskie śląskie warmińsko-mazurskie dolnoślaskie kujawsko-pomorskie ubelskie łódzkie mazowieckie opolskie podlaskie zachodnio-pomorskie above PLN 1,600 PLN 1,401-1,600 PLN 1,201-1,400 PLN 1,001-1,200 PLN 801-1,000 dolnoślaskie pomorskie warmińsko-mazurskie wielkopolskie PLN 601-800 up to PLN 600 zachodnio-pomorskie

FIGURE 2.4 Applications received under CAPP 1.0 compared to estimated population received

Source: World Bank analysis of application data received as of September 11, 2020 from NFOŚiGW.

Application

## NUMBER OF HOUSEHOLDS IN DIFFERENT INCOME GROUPS

Population (Est)

Based on the 2018 Household Budget Survey and 2018 Energy Survey, we estimate that there are 4.3 million SFBs in need of heat source replacement and/or thermo-modernization<sup>3</sup>. The highest share of upgrades needed are found in the low- and CAPP Part 2 income groups, which together account for 2.6 million of the SFB households in need of support.

**TABLE 2.2** Estimated number of single-family buildings by income level and indicator of the upgrade type needed

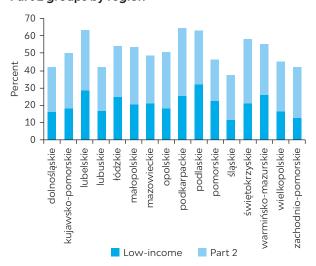
	Number of SFBs			Number of SFBs By type of upgrade needed		ade needed
Group	Total in category	% upgrade	In need of upgrade	% of those in need of upgrade	Both retrofit and boiler	Only boiler
Low-income	1.1m	94%	1.1m	25%	0.6m	0.5m
CAPP Part Two	1.7m	92%	1.5m	35%	0.8m	0.7m
CAPP Part One	2.6m	68%	1.7m	39%	0.7m	1.0 m
Tax relief Only	0.1m	18%	0.02m	1%	-	0.02m
Total	5.4m	80%	4.3m	100%	2.1m	2.2m

Source: World Bank estimates using Household Budget Survey 2018 and Energy Survey 2018. Low-income SFB owners refer to those meeting the eligibility criteria described in section 4 below, notably those receiving social benefits or have incomes below 800 PLN per person per month in a multiperson household or under 1120 per month in a single-person household.

Sub-national analysis using administrative data sources (described in Annex 6) shows the dispersion across Poland in the share of SFBs as a proportion of all buildings in a municipality. Higher shares of SFBs are found in Eastern Poland and away from major urban metropolises. Low-income

SFB are more likely to be found in rural municipalities and in municipalities with lower fiscal capacity, as measured by the g-index<sup>4</sup>. The proportion of low-income families is clearly correlated with both size and G-index of the municipality.

FIGURE 2.5 Share of SFBs in low-income and Part 2 groups by region

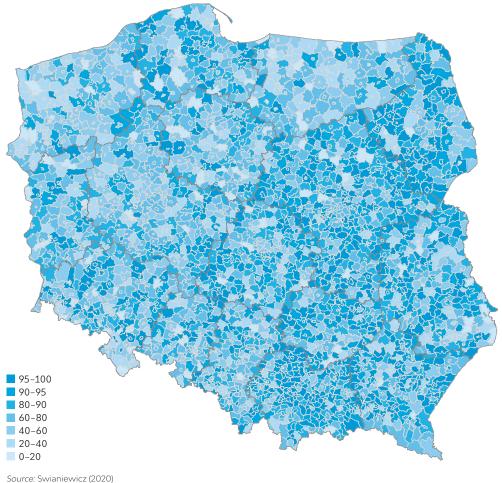


**TABLE 2.3** Approximate share of low-income single-family houses in groups of municipalities

By type of municipality		By G-index decile group	
Cities over 100,000 population	14.9%	1	24.8%
Other cities of county status	18.7%	2	23.4%
Suburb municipalities	19.2%	3	22.8%
Other big municipalities	19.6%	4	21.5%
Other mid-size municipalities	20.7%	5	20.3%
Other small municipalities	22.1%	6	19.9%
		7	19.8%
		8	19.1%
		9	17.8%
		10	17.7%

Source: Swianiewicz (2020)

FIGURE 2.6 Estimated proportion of single-family houses (as percentage of all buildings) in Polish municipalities



#### **NOTES**

- 1. For those reporting incomes between PLN 801 and I,000 the subsidy level has decreased from 67% to 60%, while for those reporting incomes between PLN I,000 and I,200 and between PLN I,200 and I,400 it has increased from 55 to 60%, and from 43 to 60%, respectively.
- 2. This would be the case if, for example, the income tax form presented to reflect income sources does not fully reflect all the sources of income, for example due to informality. It could also be the case if a household reports more residents than are actually present in the household.
- 3. Under the Cur3 engagement, 4.4m single family buildings were assessed to need heat source replacement and/or thermo-modernization. This earlier analysis used the 2017 Household Budget Survey combined with the 2015 Energy Survey.
- 4. G-index is a measure used mostly to allocate equalization transfers to municipalities. The index for municipality i is equal to the sum of revenues from local taxes which municipality i would receive using maximum tax rates and granting no tax exemptions or reliefs plus revenues of municipality i from shares in income taxes divided by the population of the municipality.

CHAPTER 3

# KEY PROGRAM RECOMMENDATIONS

Transitioning towards modern efficient boilers with thermal improvements will need key program elements to support an effective implementation of CAPP, in particular, to ensure demand from SFB households. The following program recommendations are separated into those that would require policy support, and other types only requiring program and operational enhancement. These are important elements to ensure the sustainability of CAPP, especially to ensure demand in its initial years.

#### POLICY AND REGULATORY RECOMMENDATIONS

#### **Coordination and cooperation**

- Consolidation of existing government programs and harmonization across income thresholds for clean air programs. The introduction of several competing or overlapping anti-smog programs with different subsidy and incentive schemes offered by the regions and municipalities creates uncertainty and confusion for SFB households. For instance, in Małopolska and Śląskie, the existence of various programs in parallel, such as the Regional Operational Program (ROP) or the SSP, is noted to have caused confusion in the marketplace, resulting in the SFBs preferring to wait for programs with higher subsidies. Where the program boundaries are for these competing programs is not clearly defined, such as between the SSP and Part 2 beneficiaries in CAPP, this can delay investments and reduce the abilities of households to self-direct to the relevant program. The consolidation of a single webpage for CAPP, the SSP, and the tax deduction has, however, improved coordination of these three instruments. More should be done in terms of consolidating CAPP and the SSP as implementation of the low-income segment moves forward.
- Formal structures to allow for regular and systematic coordination across ministries is needed to support aligned policies. This is particularly important for low-income households, who may require support that cuts across ministries. The Plenipotentiary of the Prime Minister for the Clean Air Program has the responsibility of ensuring coordination and cooperation across ministries engaged in actions to support the CAPP, and to optimize the response to the emerging needs on an ongoing basis. As such, the WB recommends that the Plenipotentiary create an inter-ministerial task force to support better coordination of those sectors engaged in supporting the implementation of CAPP. This could be done by strengthening the membership and functions of the existing National Air Protection Program Steering Committee to coordinate on CAPP policy issues and links with other programs and strategies related with air pollution, energy and environment, identify and help address policy gaps, and coordinate financial resources, indicators and implementation capabilities across programs. The Steering Committee could also coordinate needed actions to ensure commercial banks can participate, and to ensure that coordination between the MOCE and the MOFSP takes place to support the implementation of the low-emission transition, including Part 2 of CAPP and the low-income program.

#### **Enforcement**

Adoption of ASRS and their enforcement are needed across Poland to stimulate the replacement of boilers that contribute the most to emissions of air pollutants.

• The adoption of anti-smog resolutions (ASRS) by regional parliaments allows regions to restrict the use of certain fuels and heating systems. The adoption of ASRS was enabled by the Act of September 10, 2015 amending the Act on the environmental protection law. Under Article 96, the self-government of a given province may, in order to prevent negative impact on human health or the environment, introduce restrictions or bans on operating installations in which the fuels are burned (Makuch, 2019). The regulation of Article 96 indicates the elements of the resolution that are compulsory and those that can be optional. The mandatory elements of each resolution constitute: (i) the borders of the area in which restrictions or prohibitions are introduced; (iii) types of entities or installations for which restrictions or prohibitions are introduced; (iii) the types

or quality of fuels allowed for use or the use of which is prohibited in the area covered by the resolution or technical parameters or solutions of installations in which the fuels are burnt (Makuch, 2019). The resolutions transfer both responsibility and action to owners of residential and other buildings, who must follow the imposed resolutions by the region. For effective implementation of ASRS, it is crucial to raise public awareness on adopted regulations and of the CAPP, which provides financial support to households for reaching their objective. This is particularly important in those region with ASR deadlines approaching (see Table 3.1).

• While regions are not required to put in place ASRS, their establishment and eventual enforcement is seen as a key regulatory component of the CAPP, since low market uptake of heat source replacement and thermal-retrofit is a risk for CAPP in reaching its objectives. As such, these regulations are important to support market uptake for the national program. Twelve out of the 16 regions have adopted ASRS requiring SFB owners

**TABLE 3.1** Anti-Smog resolutions by region

Region	Anti-smog resolution effective date
Dolnośląskie	01.07.2024
Kujawsko-Pomorskie	01.01.2024
Lubelskie	N/A
Lubuskie	01.01.2027
Lódzkie	01.01.2023
Małopolskie	01.01.2023
Mazowieckie	01.01.2023
Opolskie	no date set
Podkarpackie	01.01.2022
Podlaskie	N/A
Pomorskie	01.07.2035
Śląskie	01.01.2022
Świętokrzyskie	01.07.2026
Warmińsko-Mazurskie	N/A
Wielkopolskie	01.01.2024
Zachodniopomorskie	01.01.2024

Note: Due to variations in the covered fuel types and boiler requirements across anti-smog resolutions and stepped implementation processes within regions, it is not possible to use a fully aligned and common definition for the anti-smog resolution effective date. We denote the effective date as the point at which boilers for coal or wood that do not meet ant emission standards are introduced. The exception for this is Opolskie, which does not include any requirement for the replacement of boilers below a certain standard.

to replace non-compliant solid fuel boilers (manually fed-coal boilers with low-quality coal, wood and trash used as fuel), while consultations are on-going in a 13<sup>th</sup> voivodeship¹. Even in the regions which have adopted ASRS, knowledge on the resolution has been uneven and enforcement should be strengthened.

- In those voivodeships with ASR deadlines for boiler standards fast approaching and large segments of the population that are unprepared, outreach and support for transition needs to be scaled up. A transition period at the request of the household may be considered. For example, in Silesia the ASR specifies that from January Ist 2022 only boilers that have been used for less than 10 years are to be used; however, in many municipalities the majority of households continue to have non-compliant heat sources. In this circumstance, a limited duration, additional transition period may also be considered; to encourage households to act, the transition could be upon the request of non-compliant households, with a register of such households established (within the forthcoming central buildings emissions registry [CEEB]). In this way owners of non-compliant boilers will be directly involved in the process of obtaining a prolongation, thus made aware of the obligation to replace their heat sources. A blanket transition period that applies to all households would likely not be as effective in promoting heat-source replacement and would not stimulate the transition in the same way, as it would simply extend the deadline for heat source replacement without directly engaging boiler owners and without making them aware of the legislation.
- An effective monitoring and enforcement system is also needed to ensure public compliance with air quality rules and regulations, most importantly AQPS and ASRS. Still, key information and practical role definitions are missing. Potentially the most consequential gap in the existing system of monitoring, implementation and enforcing compliance is the lack of effective control over SFB heating installations at the local level. Inspections would be needed, and are the norm in other countries, to ensure that equipment complies with emission and energy efficiency regulations and only use permitted fuels. However, while the situation varies by locality, only a small number of inspections is carried out in most municipalities due to the limited availability of staff, skills, equipment and the high cost of testing ash samples for fuel quality and compliance. This problem is especially visible in municipalities without municipal guards. Systemic solutions for this problem should be developed.

- In regions that have adopted anti-smog resolutions, the ASRS are enforced by government officials of the municipal police, municipal guards and VIEPS. Inspections of compliance with requirements of ASRS are carried out based on technical documents and certificates provided by users which confirm compliance with the required standards. Authorities can also control compliance with fuel standards by taking samples of ash from home boilers, which are analyzed in laboratories.
- The number of inspections related to AQPS, ASRS and fuel standards² carried out in a given municipality depends primarily on how seriously the authorities treat the problem of poor air quality. A 2018 report by Poland's Supreme Audit Office (NIK 2018) criticizes the number and effectiveness of current inspections: overall, the number of household inspections is low and compliance is therefore limited. In most municipalities, only a low number of household inspections are implemented, given the limited number of inspectors assigned to control tasks and the high costs of laboratory evaluations of the quality of solid fuels burned in households—up to EUR 150 per sample. In general, offices in large cities carry out significantly more checks than smaller municipalities. The least number of inspections is carried out in rural municipalities where an average number of 0.5 inspections was carried out per municipality in 2018 (Portal Komunalny.pl. 2018).
- Significant differences in the number and effectiveness of controls can be observed between municipalities, depending on their level of staffing. Municipalities with municipal guards³ record on average 50 to 70% more violations of ASRS that lead to the assignment of fines or referral to the court (Krakowski Alarm Smogowy 2018). In 2016, 4,700 furnace inspections were carried out in Małopolska region in municipalities with municipal guards, and only 150 inspections in municipalities without guards. In 2017, the overall number of inspections significantly increased, with 12,000 inspections in communes with guards, compared to 450 inspections in communes without guards.
- Central emissions registry could support implementation of ASRS. A lack of emissions registry in Poland poses challenges for the proper planning of heat source replacement. This is a critical gap for the heat source transition, both from the perspective of the implementation and eventual enforcement of Anti-Smog Resolutions and from the perspective of adequately targeting resources to regions and municipalities with the higher shares of non-compliant boilers. The approved amendment of the Act on supporting thermo-modernization and renovation and certain other Acts, expected to enter into the Journal Of Laws of the Republic Of Poland in December 2020, introduce a legal basis for the functioning of the Central Register of Emissions from Buildings (Centralna Ewidencja Emisyjności Budynków, CEEB). This amendment will enable the collection of countrywide uniform and consistent data on buildings and their emissions sources. Further information on the CEEB can be found in the Box 3.1.

#### **BOX 3.1** Central Register of Emissions from Buildings

At the moment, there is no single national or regional register that would allow any authority to assess a potential beneficiary of CAPP or other emission abatement program. The database is a first attempt at the central level to organize and unify data on emission sources (heat boilers) in the individual heating and other relevant related information: (i) technical specification (age, boiler class), (ii) track record of boiler control and measurement of pollution levels and (iii) history of modernisations and investments in energy efficiency (boiler upgrade, etc.) and subsidy records (source of funding, value). Hence, the CEEB has the potential to play an important role in the implementation of CAPP and the low-income program, as it brings information from numerous regional (municipality led) and national registers to a common denominator and increases the quality of data used and decisions made.

The legal apparatus accompanying CEEB equips the relevant funding authorities (i.a. NFOŚiGW, WFOŚiGW, BGK), representatives of municipalities (air protection specialists at

the city hall and social protection specialists at MOPS), and inspection specialists (e.g. chimney sweepers) with tools needed to fill CEEB with new records and maintain its activity. The Act defines a role (duties and rights) for different parties with access to CEEB and households themselves with regard to maintenance of records in the database on a regular basis (annually) or as one-off events. The introduction and successful implementation of CEEB should allow NFOŚiGW and other funding authorities (WFOŚiGW, marshal offices, municipalities) which have access to CEEB to better track information on heat sources by a municipality.

If properly introduced, the CEEB can also allow the public administration to measure energy poverty in a very detailed scale and track progress in its reduction in areas particularly exposed to this phenomenon, e.g. in areas with high population density and no access to CHP and gas network. Therefore, a rapid and successful implementation of the registry would greatly facilitate effective planning and implementation of air quality policies.

• Encourage households to conduct thermal retrofits and enforce existing requirements: The government should enforce establish energy performance requirements related to renovations and sales of existing buildings. The program should also encourage thermal modernization, given the impact they have on heat bills (see Box 3.3 for more details).

#### Use of fiscal and social policy to support transition

• Use fiscal instruments to ensure that coal users incur the full societal costs of coal, and more broadly, discourage coal use for SFBS. Coal prices do not reflect the impacts that burning coal has on air pollution, health, and the economy<sup>4</sup>. A 2018 World Bank report estimated that the cost of ambient air pollution alone amounts to about US\$ 31-40 billion, equivalent to 6.4-8.3% of GDP in 2016. These are costs to society that are not reflected in the prices paid by households for coal. Fiscal instruments, in the form of a coal or smog tax, could be used to better reflect the significant health and environment costs of coal use for space heating in SFBS. The inclusion of externalities in the price of coal would then help align incentives for households to switch to cleaner fuels for heating (see Box 3.2 for further details). These fiscal instruments would need to be reinforced by the enforcement of the ASRS, regulations on the quality of solid fuels, coal standards and substandard solid fuel boilers, through a system of inspections and controls-as discussed above.

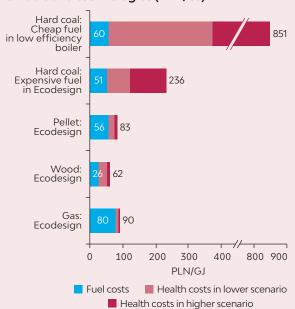
#### BOX 3.2 Coal boilers are the most expensive heating technology when considering health impacts

Poland records annually 45,700 premature deaths or 550,000 years of life lost (YLL) attributable to PM<sub>2.5</sub>, NO<sub>2</sub> and  $O_3$  exposure. This translates to 1,449 YLLs per 100,000 inhabitants due to ambient air pollution, which is one of the highest values for any country in Europe. Emissions from old, inefficient solid fuel boilers in SFBs fueled by coal and wood are a major contributor to this health burden. The financial cost (i.e., cost of fuel) to the household do not capture the cost of the health burden and are thus only a fraction of the total economic cost of heating. The figure to the right provides an estimate for the total cost of heating (in terms of PLN per GJ of heating output of the boiler) for different boiler technologies and fuels, including cost of fuel and cost of health impacts from NO<sub>X</sub>, SO<sub>2</sub>, benzo[a]pyrene (BaP), and non-methane volatile organic compound (NMVOCs) emissions. The cost of health impacts from these emissions were quantified according to the methodology of the European Environmental Agency (2014). The range of estimated health costs corresponds to the use of two complementary approaches for valuing health damage: the value of a life year (VOLY, low health cost scenario) and a value of statistical life (VSL, high health cost scenario).

In terms of fuel cost to the household, the figure shows that an upgrade from an old, inefficient coal fuel boiler to an ecodesign coal boiler reduces the cost per GJ of heat output from PLN 60 to PLN 51 due to the higher boiler efficiency, which compensates for the higher cost of the more expensive quality coal (provided the homeowner uses coal only and pays for its cost). An upgrade to a gas boiler increases the cost per GJ of heat output from PLN 60 to PLN 80. However, if the cost of the health burden from emissions are included, the cost of using coal boilers are significantly higher: the cost per GJ of heat output is up to 851 PLN (or PLN 379 in the low health cost scenario) for the inefficient coal boiler and PLN 236 (or PLN 125 in the low health cost scenario) for the ecodesign coal boiler, compared to only PLN 90 for the gas boiler or PLN 83 for the pellet boiler. This suggests that both types of coal boilers cause substantial cost to health and thus government programs should give preference to

non-coal boilers such as gas or pellet boilers. It should be noted that old, inefficient solid fuel boilers are often fueled with low quality wood or waste that is collected for free. This reduces the cost of fuel for the household, but further increases emissions and the cost of health impacts.

#### Pricing of externalities: fuel and health cost of fuels and technologies (PLN/GJ)



- The following assumptions were used to estimate the cost of heating:
   Fuel prices: 26.9 PLN/GJ for hard coal (cheap) and 38.5 PLN/GJ for hard coal (expensive); 50 PLN/GJ for pellets; 17.1 PLN/GJ for wood; 72.2 PLN/GJ for gas (Source: Statistical Office of Poland, Kalkulatory Budowlane - kb.pl) Efficiency of boilers: Low efficiency coal 45%; Ecodesign coal 75%;
- Ecodesign pellet 90%; Ecodesign wood 65%; Ecodesign
- Emission factors and technology parameters based on the Institute
- for Environmental Economics Health cost of emissions based on European Environment Agency

• Financial support to mitigate heating bill impacts for low-income households. Although the impact of the cost of heating will vary across houses, depending on the baseline fuel used, building structure, and technology shift, the cost of heating is likely to rise for certain population segments, such as those that heat their houses with no-cost fuels, including waste and wood from local forests, or switch to much cleaner fuels, such as gas or electricity. SFBS in all income groups need to clearly understand the program benefits and implement both thermal retrofitting and heat source replacement to avoid higher fuel costs. Potentially rising costs will be particularly problematic for the 15.1% of SFB owners that are considered to be poor (see Box 3.3 for further details),

#### BOX 3.3 Impact on heating bills: Switching from old solid fuel boilers to natural gas or pellet boilers

The replacement of inefficient and polluting solid fuel (e.g., firewood, coal) boilers with natural gas or pellet boilers can increase the heating bill of households, especially if the boiler upgrade is not accompanied by thermal renovation measures. The two most common fuels used in residential solid fuel boilers are hard coal and log wood. The vast majority of people who heat their house with a solid fuel boiler use a mix of coal and wood (only 5.8% of households use solely coal and only 4.6% of households use solely wood). Typical strategies include (i) coal and wood are used interchangeably depending on current prices and availability or (ii) wood is combusted in warmer weather while coal (with the relatively higher calorific content) is used in colder weather. A study conducted in Małopolska, for example, showed that the share of wood in the total annual solid fuel consumption was significant: an average of 4  $\mathrm{m}^3$  of wood was used in addition to 4.7 tons of coal per year. In rural areas many people own little patches of woodland, which may constitute a source of free log wood for heating. It can be assumed that poorer households limit their spending on heating fuels, tend to use low-quality coal, and complement it with cheap or free alternatives such as collected wood or waste. Therefore, the impact on the heating bill from upgrading from a polluting solid fuel boiler to a modern gas or pellet boiler depends to a large extent on the existing fuel mix and their costs. Given the limited data on the existing fuel mix in low-income households, two scenarios based on the average mix of coal

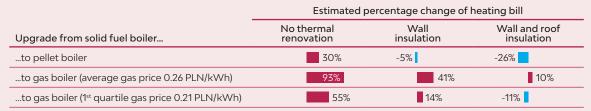
and wood found in the Małopolska study were assumed: scenario 1 assumes a household that uses coal of average quality and purchases wood. Scenario 2 assumes a household that uses coal of low quality and gathers wood at no financial cost (or uses waste in place of wood).

The two scenarios illustrate the estimated percentage change of the heating bill when upgrading from a solid fuel boiler to a pellet boiler or gas boiler (for two gas price points based on the Statistical Office of Poland). While a boiler upgrade without any thermal renovation leads to an increase in the heating bill (increase between 11% and 93%), a combination of a boiler upgrade with insulation measures for walls and roof leads to a decrease in the heating bill in most cases (decrease of up to 37%). Thus, thermal renovation measures can compensate or offset an increase in the heating bill when switching from polluting solid fuel boilers to modern boilers. Since about 70% of residential houses in Poland have low thermal insulation standards, thermal renovation measures (e.g., wall and roof insulation, upgrade of windows) should be part of a program to modernize residential heating sources. It should be noted that there are poor households that largely or exclusively use solid fuels collected at no financial cost (e.g., poor quality wood and waste), so such households would experience additional cost for heating after an upgrade to clean boilers regardless of thermal renovation.

#### Scenario 1: Solid fuel boiler with mix of coal and wood (average quality)

#### Estimated percentage change of heating bill No thermal Wall and roof Wall Upgrade from solid fuel boiler.. insulation insulation renovation ...to pellet boiler 11% -19% -37% 20% ...to gas boiler (average gas price 0.26 PLN/kWh) 65% -6% ...to gas boiler (1st quartile gas price 0.21 PLN/kWh) 33% -3% -24%

#### Scenario 2: Solid fuel boiler with mix of coal and wood (poor quality) with wood collected at no financial cost



- · A mix of wood and coal is used in existing solid fuel boilers (4m³ of wood and 4.7 ton of coal based on a study conducted in Małopolska in 2016/201
- Coal price of 840 PLN/t for average quality (average coal price) and 700 PLN/t for low quality (1st decile coal price) for households according to the Statistical Office of Poland (GUS)
- Calorific value of coal: 24 MJ/kg for average quality and 21 MJ/kg for low
- quality (Instytut Ekonomii Środowiska, IES) Wood price: 112 PLN/m³ for average quality (average wood price for house holds according to GUS) and no cost for low quality
- The following assumptions were used to estimate the change of the heating  $\cdot$  Calorific value of wood: 16 MJ/kg for average quality and 13 MJ/kg for low

  - Log wood density: 0.8 t/m³

    Pellet price: 800 PLN/t for class II pellets (Kalkulatory Budowlane kb.pl)

    Calorific value of pellets: 19 MJ/kg for class II pellets (Kalkulatory Budowlane: kb.pl)

    Gas price: 0.26 PLN/kWh (average gas price for households) and 0.21 PLN/
  - kWh (first quartile gas price) for households according to GUS Efficiency of boilers: Existing solid fuel boiler 55%; pellet boiler 87%; gas boiler

  - · Energy savings from thermal renovation: 27% savings from insulation of walls; 43% from insulation of walls and roof

who are likely to actively need support for operational costs related to shifts in the cost of heating. The uncertainties around rising costs of heating are likely to feed into delays in investments across a broader swathe of price-sensitive households. It is recommended that for those poor SFB households, energy programs targeting vulnerable households (for instance the Energy Allowance as it is being reformed) could include some clean fuel support mechanism to help pay for heating operational expenses, to further promote the switch from polluting coal to cleaner fuels.

# PROGRAM DESIGN AND OPERATIONAL RECOMMENDATIONS

#### **Promoting Program Demand**

- Program operators can be used to help aggregate demand and provide comprehensive technical support to SFB households on the program. It is crucial to get technical support to SFBs households, to help explain the scope, regulations, and rules of the program, understand what equipment and material are eligible for subsidy, define the scope of the boiler replacement and thermal retrofit in an objective way, oversee work, and help collect all the documentation needed to submit the application. Such technical support has sometimes been provided in the southeastern part of the country by third-party operators, or by installers that implement investments under the program. This support goes beyond the type of outreach support that a municipality can provide; it is therefore recommended that CAPP consider ways to incorporate operators as important partners, especially for elderly or socially marginalized households that require higher subsidy levels and technical support during the application and implementation phases.
- CAPP centralized website hosted by NFOŚIGW should be used to consolidate all information, facilitate interaction with implementation partners, and support overall program monitoring and evaluation. It is critical to further advance an online platform for CAPP where any SFB owner/co-owner or partner can find program information. This would include the program guidelines, rules and requirements, application, lists of eligible equipment and material, online calculators, links to wfośigw and participating commercial banks, and progress reports or dashboards where the results of the program are displayed. Although there has been progress in this direction, with a webpage that brings together CAPP, SSP and Tax Relief, the platform should continue to be enriched going forward to help improve access to program information, implementation progress reports and increase transparency in the use of public resources.
- *Integrated IT platform.* Furthermore, there should be a well-designed and comprehensive IT architecture to automatize the processes, information, and databases, as much as possible. This information should be available to the banks, the wfosigws, nfosigw, and the sfb owners/co-owners so that they are able to know the status of their application and payments, what technologies are being demanded, in what regions, and so on.
- Monitoring, reporting and evaluation elements for CAPP. Program indicators, targets, and milestones for SFB upgrades completed, and retrofits undertaken, should be developed for different time periods (monthly, quarterly, annual, and others). These indicators should be based on measurable metrics with clearly identified data sources that are monitored, reported, and evaluated on a regular basis. It is thus recommended that the CAPP introduce 3-year rolling plans with interim targets to measure progress against the program end goals and monitor deviations periodically. These plans can also help inform funding levels, staffing needs, etc. over the upcoming periods and reassessed to ensure end targets can be met. Tracking program implementation, including technology choice, will help to refine resources needed and develop annual financing plans. It will also provide a clear market signal to stakeholders—such as manufacturers, suppliers, installers, and commercial banks—to adapt to shifts in market demand. Regional tracking would allow for comparison across regions of application and completion rates, and to identify where further localized campaigns of engagement are needed to stimulate program demand. This is particularly important for regions with ASRS in place. Progress in these regions needs to be assessed against ASR key dates, and

municipalities that require a quickened pace of heat source upgrades, would need to be identified and supported. Databases for household energy use, fuel type, air quality monitoring, and social surveys should be designed at the outset to routinely record information from program-tracking protocols. The database will serve not only to record and report information but will also serve as a valuable source of information for future program design, to help assess the effectiveness of the program, and make adjustments that will improve implementation during the remaining years.

- Program outreach, communication and training.
  - Strong mechanisms for continuous program outreach and communication are critical for the success of CAPP. Program success will hinge on the continuous and effective marketing of the program, its benefits, and education related to sustainable heating options that expands on the approaches already undertaken. All SFB owners should clearly understand the program benefits and the importance of coupling thermal retrofitting with heat source replacements to offset higher energy bills. Beyond informing households on program details, communication campaigns can be designed to support attitude shifts which can feed through to behavioral change. Knowledge and concern about the health impacts of poor-quality solid fuel boilers can be enhanced, and continuously communicated to SFB households throughout Poland. Ideas for doing this can be found in Box 3.4.

## **BOX 3.4** What are attitudes of households towards boiler replacement, and how can communication and other approaches help to shift attitudes and behaviors?

A large share of SFB owners are stuck in their heat sources replacement plan. About one third has moved to cleaner heat sources, but we estimate that 44% of SFB owners with dated solid-fuel boilers are stuck in their current technology - they have no plans to replace their boiler or are planning to upgrade to a non-compliant source. A further 26% are shifting to cleaner technologies – but typically on timescales that are not linked to local anti-smog resolutions. Targeting the shifting SFB households (26%) can help increase the share of SFB undergoing heat source replacement, and in turn help convince the SFB owners that are stuck in their current technology. These findings were uncovered through an assessment of plans and attitudes towards switching heating technologies and thermo-modernization in July and September 2019.

Limited knowledge of regulatory changes and a lack of prioritization even when knowledge is there: Quantitative

evidence from Małopolska and other select regions highlights that between 60 and 70 percent of inhabitants are aware of an anti-smog resolution, but few understand the details of this resolution (dates for boiler replacement, type of boilers that can be used to replace existing heat sources). For effective implementation of ASRs, it is crucial to raise awareness of the adopted regulations and financial support programs.

Limited awareness of the non-financial benefits of heat source replacement, limiting demand for uptake. Many SFB owners and citizens are not fully informed about the health impacts of poor air quality and the link between the burning of solid fuels and local air quality. Evidence in Małopolska suggests that less than one third of inhabitants accept that their burning of biomass contributes to air pollution. This has limited the demand for uptake.

- Enhancing the current communications strategy through continuous and structured outreach at the national, regional, and local level will be fundamental to create demand and increase market uptake. It is recommended that either MOCE or the NFOŚiGW hire a communication team (agency) to manage the design and structure of outreach and information activities related to the program, with dedicated staff from various backgrounds. A dedicated communication campaign manager will be important to stay abreast of public and political shifts that will require dynamic messaging and monitoring of progress. Beyond informing households on program details, communication campaigns can be designed to support attitudinal shifts which can feed through to behavioral change. For example, knowledge and concern about the health impacts of poor-quality solid fuel boilers can be enhanced, and continuously communicated to SFB households throughout Poland; also, the campaigns can raise awareness about existing ASRS and the dates for its enforcement.
- Trainings should target implementation partners and service providers. Periodic training
  programs for all program partners on program requirements and procedures (for example,
  supply-side operators who are supporting households to complete applications, commercial banks, installers, contractors, and so on) will be important. Keeping these stakeholders

abreast of program developments is also necessary as part of change management processes. Many trainings have already been conducted to prepare municipal energy engineers to support program outreach.

## **NOTES**

- 1. A 14th ASR in Opolskie does not include any requirement for the replacement of boilers below a certain standard.
- 2. In September 2018, the Regulation of the Minister of Energy on quality requirements for solid fuels was adopted (JOL of 2017, item 1690) and enters into force in June 2020. The regulation specifies the minimum requirements that must be met by selected solid fuels (i.e. coal, briquettes, the solid fuel form processing of lignite or hard coal). However, the permittable sulphur content for coal use of households continues to be higher in Poland compared to other EU countries (Awe et al. 2019).
- 3. Municipal guards are municipal police forces that are funded and administered by some municipalities in Poland,

- depending on their size and financial resources. Not all municipalities maintain municipal guards.
- 4. Air pollution levels in Poland are damaging for health, particularly for children and the elderly. Poor air quality contributes to nearly a quarter (23 percent) of bronchitis cases among children - leading to over 200,000 cases every year. Among adults, a third (33%) of chronic bronchitis cases are linked to air quality. The morbidity burden is highest in the regions where residential heating triggers high levels of air pollution in the winter: Slaskie, Wielkopolskie, Mazowieckie, Lodskie, and Malopolskie.
- 5. World Bank, 2018. "Economic analysis of ambient air pollution in Poland".

**CHAPTER 4** 

# OVERVIEW OF ENGAGEMENT AND RECOMMENDATIONS TO SUPPORT THE PARTICIPATION OF COMMERCIAL BANKS UNDER CAPP

#### **COMMERCIAL BANKS**

The wB's two previous Catching-up Regions Initiative reports recommended approaches to strengthen distribution channels for middle and high-income sFBs be supported principally through financing from commercial banks who could also channel subsidies to eligible SFBS, under a 'one-stop-shop' approach. The advantages of using a one-stop-shop approach is that it serves as one window for applicants to apply for commercial loans and CAPP subsidies for the boiler replacement and thermal retrofit projects. Commercial banks have strong experience with retail banking, have retail and branch offices across the country, and their involvement in the implementation mechanism can help significantly scale up the program by making financing accessible to a much larger number of SFBs households. Commercial banks in Poland have a large portfolio of retail loans and extensive experience on their due diligence, having developed metrics for creditworthiness of retail customers, and are able to process commercial loans through mobile applications, all of which would facilitate the expansion of a dedicated product line to CAPP and the implementation of the program at scale. A dedicated product line developed by banks would form their portfolio estimation and planned marketing actions, including agreed staffs' or intermediaries' sales targets. In addition, the subsidy channeled through the lending agency could be used to pay down the principal of the loan and lower the risk of loan default. Commercial banks have worked extensively over the past year on the simplification of the operational process to be able to join the CAPP program to finance SFB households that are undertaking thermal retrofits and boiler replacement.

The development of a one-stop-shop scheme for commercial banks requires the coordinated involvement of various stakeholders. NFOŚiGW, as the implementing agency for CAPP, coordinates the processes and legal ties among involved parties, and is the subsidy fund provider to the WFOŚiGW. The regional governments provide the subsidies to the beneficiaries and are responsible for processing, checking, verifying, controlling, and approving the subsidy application. Commercial and cooperative banks participating in CAPP provide loans, distribute subsidies, develop the marketing strategy for the commercial product among potential beneficiaries and existing customers, assist in filling out the subsidy application through the bank's systems, and act as intermediaries of subsidy payment to the beneficiary after the investment has been finalized. The PBA, representing the Polish banking sector, has committed to coordinate and moderate all agreements and working groups on the different implementation mechanisms. This will ensure that the CAPP financial product can be implemented by commercial banks across the banking sector. The roles and responsibilities within the one-stop-shop approach are as follows:

- NFOŚiGW provides funds to WFOŚiGW for grants to pay for partial capital repayment of bank loans granted for the implementation CAPP projects by SFB owners
- The wfosigw examines and approves grant applications, concludes grant agreements, and pays grants to the sfb owner that is channeled directly to commercial banks for repayment of the loan principal
- The banks, from their own funds, provide loans to SFB owners for the implementation of the boiler replacement and thermal retrofits under CAPP, and accept grant applications from the applicants to be submitted to the competent wfosigw with the required documentation.

FIGURE 4.1 One-stop-shop concept

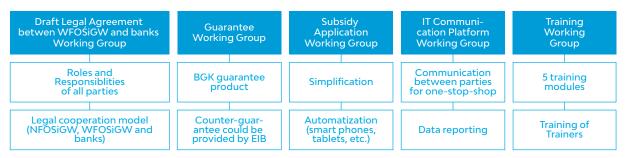


The participation of commercial banks in CAPP needs the development of practical and simple implementation mechanisms. The WB team worked closely with the PBA, commercial banks and cooperative banks, BGK and NFOŚiGW. The technical support aimed to help develop all the

procedures and process necessary to enable the bank's participation included: (i) review of the legal model of cooperation, including roles and responsibilities of each participating entity (that is, NFOŚiGW, WFOŚiGW, and commercial and cooperative banks); (ii) extensive review of the CAPP subsidy application; (iii) one-stop-shop IT communication processes among the parties (that is, the NFOŚiGW, WFOŚiGW, commercial and cooperative banks; (iv) work with the BGK and commercial banks to structure a guarantee product to help mitigate risk; and (iv) building the needed training capacity for participating banks.

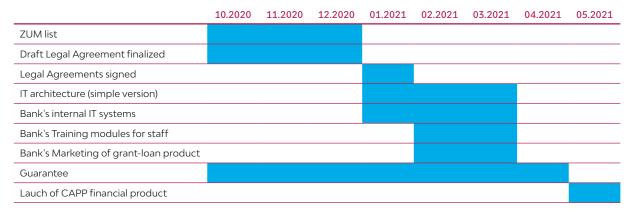
After successful consultations and negotiations, a Memorandum of Understanding (MOU) was signed between the PBA and NFOŚiGW on April 30, 2020 delineating the conditions and operational procedures for banks to participate in CAPP (see Annex I). The MOU was important to officially jumpstart the participation of commercial banks in CAPP under a one-stop-shop model. After the MOU was signed, NFOŚiGW, PBA, banks, and the BGK established five working groups to advance work on the key aspects: (i) draft of the legal agreement between the WFOŚiGW and the banks; (ii) CAPP guarantee; (iii) simplification of the CAPP grant application; (iv) one-stop-shop IT communication processes; and (v) training capacity needed for participating banks (see Figure 4.2).

**FIGURE 4.2** Five Working Groups to move Forward with Mainstreaming Commercial Banks Participation in CAPP



The development of a guarantee product is now in the critical stage to ensure the participation of commercial and cooperative banks. Although the wB team worked with the BGK and NFOŚiGW to develop the structure for a guarantee product to help banks mitigate risks and indirectly increase the creditworthiness of SFB owners, its development needed legislative amendments to the act supporting the Thermo-modernization and Retrofit Fund (TRF). This delayed progress on the guarantee product as the institutions focused on preparing the needed legal amendments to enable the NFOŚiGW to transfer financial resources to the BGK, to cover the costs of the CAPP guarantee. The legislative changes were approved and signed by the President on November 13, 2020, allowing discussions on the guarantees working group to resume (see section 3.1.2 for more details). Although it is expected that the banks would have the systems in place by Spring 2021, finalization of the guarantee product will require more time, and will delay the banks' participation in CAPP until mid 2021 (see Figure 4.3). Details of what remains to be done is presented in the following sections.

FIGURE 4.3 Preparation Timeline for Banks to Launch CAPP Financial Product



# Draft Legal Agreement between WFOŚiGW and commercial and cooperative banks

The draft legal agreement defines the rights and obligations of the parties as part of their cooperation in cofinancing projects covered by the CAPP Program. The MOU signed between NFOŚIGW and the PBA established the overall operation scheme for the participation of banks, and triggered the drafting of the legal agreement to be signed between the WFOŚIGW and the banks. All parties, including NFOŚIGW, WFOŚIGW, PBA, seven commercial and cooperative banks<sup>1</sup>, have met regularly (and remotely under COVID-19 lockdown measures) to discuss the details of operational procedures, legal roles and responsibilities, and extensively reviewed the draft legal agreement.

Under the draft legal agreement, the banks would act as *intermediaries* between the SFB owners and the WFOŚGW. An in-depth assessment was done on the banks' role and responsibilities with respect to the SFB beneficiary and the WFOŚIGW. The initial model of operation agreed on under the MOU was to have the banks represent the beneficiaries. However, this model increased the legal accountability of banks due to: (i) a lack of a legal and statutory basis for their operation as the representative of the beneficiary under an electronically based model; (ii) having an operational model that had not been approved by the Polish Financial Supervision Committee (PFSC); and (iii) the risk of having to take the beneficiaries' side in a potential dispute between the beneficiary and the WFOŚIGW. Instead, the banks proposed another legal model of operation, where they would act as intermediaries between the SFB owner and the WFOŚIGW, that was agreed upon by all parties at the end of August 2020.

The draft legal agreement is currently undergoing revisions and should be completed by the beginning of 2021, as only four main pending aspects remain to be agreed on. NFOŚiGW, WFOŚiGW, PBA and banks have reached agreement on 90% of the draft legal agreement with only 13 pending points (see Annex 2), four of which need further discussion, which are as follows:

- Definition on how to incorporate a legal clause regarding the general data protection system into the application, to ensure that the SFB owners authorize the banks to transfer their data.
- Definition on how to address unclaimed grant funds (for instance due to a change in bank accounts, divorce, death, etc.), and the process for commercial banks to return the public funds to the wfośigw<sup>2</sup>. Although there is a proposal to return funds after 48 hours to the wfośigw, a final decision on this proposal needs to be made by the NFOŚiGW/WFOŚiGW.
- Land and Buildings Registry verification to: (a) ensure that all the co-owners are signing the application, (b) the valid registry number is being used in the application and (c) ensure that a building fulfills the SFB definition. According to the WFOŚiGWS, this is a very time-consuming process, often needing corrections that extend application reviews to 30 days. If the banks were able to verify this, then the WFOŚiGW could reduce their application review to 14 days. However, the banks do not have the resources to perform this check, and doing so would imply changing the regulations regarding accessing the Central Land and Building Registry. Therefore, the banks have proposed to have the SFB applicant access the Central Land and Building Registry, and download an excerpt stating who the SFB's owners and/or co-owners are, so that banks can verify that the application is signed by all the co-owners. NFOŚiGW/WFOŚiGW are now reviewing this proposal. The second issue regarding the use of the valid registry number, has been solved by modifying the application to only accept the latest valid number and not the old number. Thus, the SFB applicant would be responsible for providing this information in their application with the bank.
- The banks also need to confirm how they would verify if the loan was used for eligible costs, and in case it was not, establish the process to convert it to a retail loan. This is important to move forward with a guarantee scheme, as those loans that were not used for eligible costs would need to be removed from the guarantee coverage.

All parties are negotiating possible solutions to the remaining points, in order to complete and sign the legal agreement in the beginning of 2021. The banks' internal preparation of the operational aspects of the CAPP financial product is expected to take between two to three months, and

it would include, among other tasks, the development and testing of their internal IT systems, sales targets and marketing strategies for outreach, the development of training material, and the training of their staff and intermediaries regarding the financial product. It is therefore critical that the banks sign the agreements and start developing the financial product, so that it can become available. Although the definition of the bank's operational model as an intermediary caused a three-month delay in completing the draft legal agreement, the banks are committed to participating in CAPP, and envision the first legal agreements would be signed in January 2021, so that the financial product will be available on the market by mid 2021, together with the guarantee instrument.

#### **Guarantee Instrument**

Banks have expressed their interest in having a guarantee instrument which they see as necessary for successful cooperation. The guarantee could help increase the loan portfolio with the same amount of equity for the CAPP financial product. The guarantee could help provide lower interest rates, longer loan tenures, and reduce the collateral requirements to creditworthy SFB owners seeking to get a bank loan to cofinance their CAPP investments. Although the guarantee would not allow the banks to lend to uncreditworthy SFB owners, it could help making loans more accessible and affordable to creditworthy SFBS, who otherwise may not be able to get a loan (for example, someone who is not able to afford monthly installments or does not have enough collateral through risk scoring assessments).

Discussions on a guarantee product to expand the CAPP loan portfolio took place with the BGK and EIB. The BGK proposed a portfolio guarantee based on the framework contracts with each of the participating banks that would cover up to 80% of the outstanding loan principal for three more months than the loan tenure. The proposed guarantee would have no cap on the guarantee agreement rate, as the MOCE would act as the guarantor of last resort in the event of exceeding the guarantee budget. Under this approach, there would be no commission for the guarantee. The eligibility criteria for the guarantee would be compliant with CAPP conditions, and creditworthiness and other financing conditions, as determined by the banks. The EIB also offered a portfolio-based guarantee, however it would include a 25% cap on the 80% guaranteed portfolio, which limited the capital relief and improved terms and conditions, making it not transferable to the CAPP loans. The banks expressed a preference to work with the BGK's proposed guarantee scheme, as it did not limit the volume of the guaranteed portfolio. The BGK has cooperated with NFOŚiGW and MOCE on the needed legislative amendments.

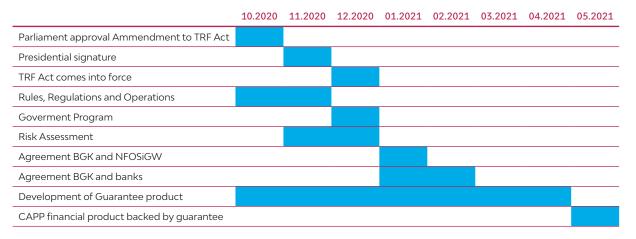
A survey was sent to the banks through the PBA to assess the CAPP loan portfolio, so as to better understand what the guarantee volume would be, however, no risk assessment has been done. Based on the responses received, the banks have estimated the CAPP loan portfolio to be about PLN 2 billion (about € 448 million or US\$ 530 million) lending a year, which would indicate that the 80% loan portfolio to be guaranteed to be of about PLN 1.6 billion (about €356 million or US\$ 422million). The NFOŚiGW would need to back up the guarantee at a certain percentage, still to be discussed with the BGK and the MOCE. If the NFOŚiGW would back up the guarantee by 10%, then this would mean a yearly collateralization of PLN 160 million (about € 35 million or US\$ 42 million). However, it is important to treat this data as a very rough estimate, as the banks do not know the specific parameters of the planned guarantee product, and most banks have not done the needed risk assessments for loss ratio estimates.

Recently, opportunities have been explored regarding the Eib's participation in CAPP, through a counter-guarantee to the BGK's guarantee. The Eib's role would be to support the BGK regarding the underlying portfolio risk where the BGK would be the entity sending the guarantee instrument to the market and would be the responsible counterpart for all relations with other banks. The Eib has indicated that the counter-guarantee would be structured so that the first loss would be backed by the European Structural Funds (ESIF), and the second loss by Eib's resources. However, more discussions are needed to understand, among other matters, the planned size of the instrument, size and composition of the portfolio, the NFOŚIGW'S backing of the BGK'S guarantee, GOP costs and liabilities, etc. in order to better assess the benefits and costs of having a counter-guarantee.

Given that legislative amendments were needed to the TRF Act to enable the NFOŚiGW to provide financial resources to the banks for the purposes of issuing guarantees, the discussions among the PBA, the banks and the BGK regarding the CAPP guarantee product, has been stalled since May 2020. Discussions were held between the NFOŚiGW, the BGK and the MOCE to draft the proposed legislation that would enable the 'Ecological Fund for Sureties and Guarantees' to be established, and allow the NFOŚiGW to transfer financial resources to the BGK to cover the costs for the guarantee. The amendments to the TRF Act were approved at the Lower House on September 17, 2020 and by the Upper House (Senate) on October 27. It is expected that the Amendment to the TRF Act will come into force in the second half of December 2020. The Guarantee Working Group has resumed its discussions on the guarantee product structure and will need to agree on a timeline with the aim to have the guarantee ready by the spring of 2021.

To move forward with the guarantee product, various steps are needed to make it available, most likely, by May 2021. A first draft of the rules, regulations, and operational procedures governing the Ecological Fund for Sureties and Guarantees has been prepared and should be completed by the end of November. An assessment of the actual loan portfolio that is to be guaranteed, as well as the default risk of this specific group is necessary to appropriately structure and price the guarantee product, and to reduce the incentives to push through the guarantee to customers that do not actually need it. The risk assessment consultancy has been hired by the NFOŚiGW and should be ready by the end of the calendar year. The launching of the guarantee system must be preceded by the approval by the Council of Ministers of the so called "Governmental Program". The Government Program is expected to be prepared, consulted and approved by the end of December 2020. Agreements between the NFOŚiGW and the BGK, as well as between the BGK and the commercial banks, need to be drafted and agreed upon. They are expected to be ready by the end of March 2021, and could then be signed. The BGK would need to start developing the guarantee product, which would take around one to two months. It is expected that the product would be ready by April 2021, so the banks could start offering the CAPP financial product in May 2021.

FIGURE 4.4 Preparation timeline for the Ecological Fund for Sureties and Guarantees



#### Simplification and Automatization of the Subsidy Application

A condition for the participation of the commercial banks has been the simplification of the procedures, enabling fast and easy decision-making, similar to existing standard cash loan products. Although the banks in Poland are keen to participate in CAPP and expand their service offering to their customers, they also expressed that a key to their participation was the simplicity of the operational process and low transaction costs. The original CAPP application was considered too complex and technical, which resulted in it taking a significant amount of time to complete, or, as in the case of some applicants, required technical support in order to complete it, with the resulting potential to delay or displace the application. The banks indicated that they routinely provide retails loans of a similar amount as those provided in the CAPP. However, these are approved through a simplified application process, which is approved on the spot at the bank's premises,

or through an online process via smartphone, tablet, or computer. The semi-automated scoring system used by banks to approve such loans simplifies and lowers the transaction costs.

Key application simplification parameters expressed by the banks included the ease of completion by the simplification of technical parameters, and increased automatization for digital processing. For the banks it is important that the subsidy application can be completed in one session by the SFB beneficiary with the assistance of either online marketing materials or a trained bank staff member. Eligibility criteria and information should be presented/collected at the beginning of the application process, so that applicant can know right away if he or she is eligible. As for the simplifications, the application should be adjusted to include three major investment categories (heat source exchange, thermo-modernization, and solar rooftop investments) for which a cap is set on the subsidy provided for each category. This simplifies the process and avoids miscalculations or potential changes the SFB household makes for the investments during implementation.

This approach does not require specialized knowledge or technical assistance to be able to complete the subsidy application. In terms of automatization, the application should be adapted so that as many parameters as possible can be filled in automatically and signed electronically. This would enable a paperless approach to fit into the existing digital banking loan granting processes. For instance, if the applicant confirms a gas connection, then the application would only allow for a gas boiler subsidy. The application should also be able to self-validate and ensure that it cannot be submitted unless all required information has been provided. It is also recommended that a digital subsidy payment application be developed to fast-track the processing of the subsidy payment. Once the investments are completed, the SFB beneficiary needs to complete a subsidy payment application and attach all related invoices and protocols. This is currently done using a paper format, but could be digitalized as well, in order to shorten the processing period and improve the efficiency of the CAPP.

#### **IT communication Platform**

A key element needed for the participation of commercial banks under a one-stop-shop approach is an integrated IT communication platform. Banks operate with paperless and highly automated systems to improve efficiency and lower transaction costs. These automated systems also help minimize mistakes and corrections, while accelerating the processing and approval rates of applications. An IT platform was deemed critical to ensure the needed communication and processing among the banks, NFOŚiGW, WFOŚiGWs and the SFB applicants. The interactive platform would enable, among others, to send electronic files, receive information on the application status, provide information on the time needed to complete its revision, and enable data reporting to different authorization levels, by different parties.

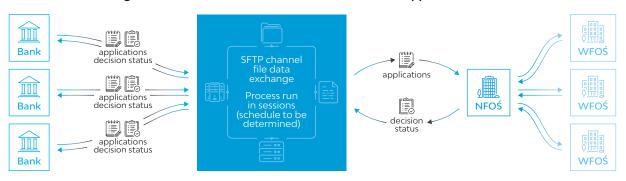
Moreover, the IT platform should be an integral part of CAPP and also include all relevant information regarding the program that could help implement and monitor program progress. As noted earlier, important program information should be readily accessible in the platform, including: program objectives and subsidy information, eligibility criteria, guidelines on how to fill out the application, access to a digital application (and payment application when ready), the green equipment and materials List (ZUM list), the calculators, and a link to a list of energy efficiency experts and eligible installers. Having all the information in one place, and enhancing electronic processes as much as possible, would not only help beneficiaries to access the program, but would also help the NFOŚiGW to monitor, report and evaluate progress (with real time data), and then adjust the program accordingly.

However, due to various constraints, the development of an integrated IT Platform, as described above, was postponed, and instead, adjustments are being made to the existing systems at the NFOŚiGW and WFOŚiGWS, to enable a more rapid commercial bank launch. The handling of the electronic application between the banks and the NFOŚiGW will take place using an the intermediary that will be able to connect all the banks with all WFOŚiGW to send the electronic applications between these two entities. The NFOŚiGW would also communicate the application status to the commercial banks, by stating "yes" if approved, "no" if not approved, and "pending" if it has

observations. In order to do this, the NFOŚiGW will be outsourcing a central application database, where it will aggregate the information on the applications received from the commercial banks and their status, based on the information received from each of the sixteen WFOŚiGWS. This database would be a step in the right direction.

The NFOŚiGW will outsource the central application database as soon as the first agreements with the banks are signed, and if the schedule to launch commercial banks within CAPP by the Spring of 2021 is maintained, the database should be ready by then. However, it is important to note that each wFOŚiGW will continue working with its own database, rather than with a centralized database. Although each wFOŚiGW has its own database, ten of them use the same software. Consolidating its use among all the wFOŚiGWs to create a centralized online platform containing all the information regarding the application, its status, the investment made, technology chosen, amount of subsidy to be available to the NFOŚiGW at any point, as well as to the SFB beneficiary, would be necessary in order to facilitate program monitoring.

FIGURE 4.5 Basic digital workflow to enable electronic submission of application from banks to WFOŚiGW



Source: IT Platform Working Group

Although the banks have agreed to start a first phase with minimum automatization functionality, it is strongly recommended that the NFOŚiGW works toward the development of a fully integrated IT platform, to help automate the process and enable the needed monitoring and evaluation of such a large national program.

#### **Training and Communication Strategy**

The training working group has defined seven modules to provide training to bank staff and intermediaries on CAPP. As the agency managing the implementation of CAPP, the NFOŚiGW will provide coordination and guidelines on the key modules that will be prepared by the different bank entities participating in the working group. The training modules will explain the program, the subsidy and measures supported, the subsidy application and how to fill it out, the loan conditions, after-sales support, and the material to be provided to the SFB owners wanting to join the Program. Each entity developing the module will define the methodology and tools (for example, online, e-learning, presential learning, and others), developing the training material, and advising whether testing should be included. The scope of the training has been defined in the following modules:

- Module I—Introduction to CAPP program, rules, and regulations. This module would provide the information on the general CAPP program, including scope of the support; eligible beneficiaries; subsidy levels and eligible costs; investment duration; basic versus increased level of co-financing; requirements for the accounting of investments.

  \*Responsible entity: Boś Bank.
- *Module 2—Subsidy application*. The module would include information regarding: rules and requirements for processing a grant application; technical requirements of the investments undertaken by the SFB applicant; understanding how to use the Green Equipment and Materials List (zum), and defining the scope of the planned investment; information and documents required to fill out

the application; required statements to be provided by the SFB applicant and co-owner; checking the correct completion of the application (including land and mortgage records, signing of the application by all the co-owners, and so on); principles for moving from a grant application to a grant agreement; and options and requirements for obtaining a loan for CAPP investment. *Responsible entity:* Alior Bank.

- Module 3—Loans for financing a CAPP project and for passing the grant application to the wfosigw. This module would explain everything related to the requirements and submission of a loan to finance CAPP investments, including: loan terms and conditions for the CAPP principles; the scope of information provided by the banks to the Nfosigw/wfosigw; technical requirements and documentation needed, and transfer of information.

  Responsible entity: BPS Bank.
- Module 4—After-sale service. This module would include information regarding the grant payment to repay the loan principal. It will provide information regarding conditions for confirming investments and required documentation/forms to process the payment; requirements for submitting corrections and supplemental information, and the role of the bank; and what to do if the wfośigw rejects the documentation.

  Responsible entity: BNP Paribas and Polska Bank.
- Module 5—Case studies on subsidy application. This module would present different representative cases of SFB applicants to explain how to fill in the application for each of the cases. The three representative cases would be: (i) one owner and co-owner of the SFB; (ii) a change in the scope of CAPP investment after submitting the subsidy application; and (iii) applying for an increased level of financing (Part 2).

  Responsible entity: Credit Agricole and Polska Bank.
- Module 6—Financial Instrument supporting the financing of energy efficiency improvements in SFBS and CAPP. This module would focus on providing information regarding additional financing support available to complement CAPP. The module would include information regarding how to apply to the partial subsidy for solar rooftop ("My Electricity" program); and how to apply to the Thermo modernization Tax Relief (act of November 9, 2018 amending the ct on Personal Income Tax).

  Responsible entity: NFOSiGW.
- *Module 7—Guidebook to CAPP program.* This module would be a reference guide to overall sources, documents, sources, links, institutions and their locations and addresses, and other necessary information on the CAPP program.

  \*Responsible entity: NFOŚiGW.

The training modules should be completed by early December, after which the banks should start training their staff and intermediaries. Modules I and 2 have been completed. Some modules still need definition of the legal agreement to be able to be completed (that is, Modules 3 and 4). However, it is envisioned that each responsible entity will complete the module by November, after which they will be shared with NFOŚiGW, which will need to provide clearance, so that the modules are completed by early December. The banks will work with their training departments to identify a trainer to be trained by NFOŚiGW and follow a 'trainer-of-trainers' approach during January and February of 2021.

In addition, it is strongly recommended that the Moce and/or NFOSiGW takes the lead in developing a national communication strategy for CAPP that can be shared with all the relevant parties: the WFOSiGW, banks and municipalities and the SFB beneficiaries, to help increase demand. The strategy should include a phased approach that strategizes how to package messaging about the revamped CAPP and the incorporation of commercial banks, including press releases and joint communication to be provided by all parties. Key messaging about CAPP should be prepared and shared among the regional governments, municipalities, Marshalls' Offices, and banks to ensure wide dissemination and awareness, and to avoid multiple entities providing confusing (or contradictory) information.

#### **GREEN EQUIPMENT AND MATERIALS LIST (ZUM)**

An important element of CAPP is the development of a streamlined process for SFB households to identify equipment and material that meet regulatory standards in Poland and the EU and are also eligible to be installed under CAPP. It is also important as a verification tool, as well as to help the implementation institutions, namely the wfośigws and the banks, to verify the eligibility of the investments to process CAPP subsidy payments. The list can also help the wfośigw and Nfośigw undertake verification of investments done by the SFB beneficiaries.

NFOŚIGW has tasked the Institute of Environmental Protection (10Ś) to develop the Green Equipment and Materials List (ZUM) to define the eligible materials and equipment to be financed under CAPP, which should be fully operational by the end of January 2021. Although initially ZUM was designed only for boiler equipment, it has been expanded to include a comprehensive list of green devices eligible for a CAPP grant, under the following categories: (i) heat pumps, including air-water, ground-water, and air heat pumps; (ii) boilers, including gas-oil condensing boilers, efficient biomass boilers, and ecodesign coal boilers; (iii) photovoltaic (PV) water collector, and PV solar rooftop; (iv) electric heating; and (iv) thermo-modernization construction material, including insulation, windows, doors and gates. Although ZUM already registered 1,340 pieces of equipment, these registrations need to be redone. The ZUM webpage is currently active and producers can register their items, however it will only be fully operational by January 2021. The IOŚ reports to have seen an increase in the number of registered heat pumps after the changes introduced to CAPP on May 15, 2020.

The 10s would be responsible for the management, maintenance, and update of zum throughout the CAPP program until 2029. The 10s has developed registry procedures that include: (i) evaluation of required documents, including laboratory certification, to ensure compliance with Polish standards and EU regulations; (ii) continuous update for ZUM; and (iii) interface with manufacturers and suppliers to address any issues or complaints. It has established a team of three independent experts (on solid fuel boilers, gas boilers, and ventilation and construction) that would check compliance and validate the documentation, as well as handle all appeals. The independent expert team will meet once a month to review cases and registry documentation. It would be entitled to: (i) suspend equipment and materials from ZUM; (ii) inform the manufacturer or supplier about the suspension; and (iii) revert the case to the relevant supervisory authorities (for instance, the Office of Competition and Consumer Protection [UOKIK]) for clarification. If all the documentation is correct, registration of an eligible equipment or material is expected to take a maximum of 10 days. This review and validation of documentation is especially important for solid fuel boilers that are likely to face more irregularities in the required documentation.

#### **ENERGY EFFICIENCY EXPERT PLATFORM (EEEP)**

NFOŚIGW, with support from the EC's Directorate General for Structural Reform Support (DG REFORM), has an ongoing consultancy for the design and pilot of an Energy Efficiency Expert Platform (EEEP) that will serve CAPP, as well as other programs within NFOŚIGW. The consultancy includes a baseline assessment of similar international experiences, for which Germany (Energy Efficiency Experts), Czech Republic (Seznam Specialists), Finland (Energy Certificates Experts), and Ireland (National Register of Building Energy Rating Assessors and Better Energy Homes Contractor) were selected. The baseline also included an assessment of the available energy efficiency (EE) experts in Poland (including from the central registry of energy performance for buildings, Association of Energy Auditors, Association of Energy Certifiers and Auditors, Polish Heat Pump Technology Association, and others). A proposal on the structure, role, and services of the EEEP, defining qualification levels, website design, and a maintenance scheme, will be done under the consultancy during the remainder of 2020. The consultancy also includes a six-month pilot that would start in July 2021, once the recommendations of the design are completed, and the 1T platform has been built.

The consultancy has also helped to assess the existing capacity of EE experts in Poland, which has been deemed adequate. According to international experience, the ratio of EE experts to residents is approximately 1.5 to 10,000 residents, which translates to about 5,700 EE experts throughout

Poland. The Table 4.1 shows the distribution of EE experts that would be needed in the different regions according to the population ratio. The capacity in the country exists, as the Central Register of Energy Performance of Buildings<sup>4</sup> on its own includes 15,660 licensed Energy Performance Certificate (EPC) advisors. A first cohort of EE expert candidates could be identified from the existing registers of active professionals.

It is recommended that the inclusion of partners—such as program operators, contractors and installers—be included in the EEEP, to help SFB owners identify technical support that will help them determine both the scope of the work and those who could do the work. Ground experience shows that rather than EE experts, it is installers and/or contractors that are doing the advisory work with the SFB owners to sell their own products. In addition, there are energy auditors working as program operators providing comprehensive support, from technically explaining the program and eligible measures, to helping to fill out the application and overseeing the work. Providing knowledge about prequalified installers/contractors would support the SFB owners ensure a better quality of work, especially those under the middle-low and low-income

**TABLE 4.1** EE experts needed per Voivodship (according to population ratio)

		Experts needed	
Voivodship	Population (1000s)	At 1 per 10,000 ratio	At 2 per 10,000 ratio
dolnośląskie	2,901	290	580
kujawsko-pomorskie	2,078	210	420
lubelskie	2,118	210	420
lubuskie	1,015	100	200
łódzkie	2,466	250	490
małopolskie	3,401	340	680
mazowieckie	5,403	540	1,080
opolskie	987	100	200
podkarpackie	2,129	210	430
podlaskie	1,182	120	240
pomorskie	2,334	230	470
śląskie	4,534	450	910
świętokrzyskie	1,242	120	250
warmińsko-mazurskie	1,429	140	290
wielkopolskie	3,494	350	700
zachodniopomorskie	1,701	170	340
TOTAL	38,411	3,830	7,700

Source: Design of the National Energy Efficiency Expert Platform – August 2020

groups. Criteria for their selection could follow the Krakow experience and include: good financial standing; performance quality, with at least three years of similar experience; and an agreement to include price caps for the different measures included in the ZUM list.

Although the NFOŚiGW has clarified that at this stage a list of contractors and installers will not be included in the consultancy, it acknowledges that it is technically feasible and could be done at a later stage. The consultancy is focused on the design of the first phase of the EEEP and the six-month pilot experience that will start in 2021. After the pilot, the NFOŚiGW will gather lessons learned, and, provided its management approves, may incorporate installers and contractors to the EEEP. The WB emphasizes the relevance of including installers and contractors to the EEEP, and referenced the Krakow experience, where the list of contractors and installers was an important support for residents to implement boiler replacement. This element would need to be discussed more in detail as part of a next phase of technical assistance, in particular with respect to the minimum requirements that would need to be in place for installation contractors, approaches to ensure that NFOŚiGW would not bear responsibility for the works conducted by contractors on the EEEP and how to maintain a reliable list of contractors while not having to conduct additional verification of installation works, which could slow down program implementation and be expensive.

#### NOTES

- 1. Bnp Paribas, Alior Bank, Environmental Protection Bank (Boś), Pekao Bank, Polish Cooperative Bank (BPS), Cooperative Bank Group (SGB), Credit Agricole and BGK.
- 2. This aspect is sensitive as it relates to public funds and how to return unclaimed funds to wfośigw.
- https://www.gov.pl/web/gov/uzyskaj-odpis-wyciag-albo-zaswiadczenie-z-ksiegi-wieczystej. When the applicant visits
- the ekw.ms.gov.pl website, she/he may choose the service "submitting applications for a document from the Central Land Registry Information." The applicant enters the electronic number of the perpetual ledger and may choose to get an ordinary copy, a full copy or an excerpt or a certificate.
- 4. https://www.gov.pl/web/rozwoj/centralny-rejestr-charakterystyki-energetycznej-budynkow

**CHAPTER 5** 

# RECOMMENDATIONS FOR INCOME VERIFICATION UNDER CAPP AND LOW-INCOME PROGRAM

#### **INCOME VERIFICATION UNDER CAPP 2.0**

The May 2020 reforms to CAPP introduced a simplified subsidy structure. The segmentation of income groups under CAPP 2.0 broadly follows the recommendations in the World Bank Cur3 report (2019). Further details on the affordability analysis underlying these income segments can be found in Annex 7.

The consolidated subsidy structure has contributed to the simplification of the applications for Part I beneficiaries receiving the base level of support. Under the new application structure, the majority of applicants—those applying for the base subsidy level or Part I beneficiaries—do not have to submit detailed information on their income sources to qualify for program support. This is a substantial simplification over the earlier application procedure, which required all applicants to submit certified annual personal income tax forms to prove eligibility for a given subsidy level<sup>1</sup>.

Income verification under CAPP 2.0 is required only for Part 2 beneficiaries. Under CAPP I.0, the verification of incomes was required for applicants and was conducted by the wfosigw, which do not have access to the information platforms used by the municipalities' (gminas) social assistance centers for verifying income for other programs, most notably, family benefits. During the course of the Cur4 engagement, an assessment was conducted to consider potential verification modalities for middle-low- and low-income households. The assessment identified clear complementarities between the income verification infrastructure used by the municipal social assistance centers, and the income verification needs for identifying CAPP Part 2 and low-income program beneficiaires. Furthermore, experience from Family 500+ signaled that many lower-income households did indeed need assistance from municipal structures in filling in the income component of their application forms², providing further rationale for an approach that aligned itself to existing knowledge and skillsets in the municipalities.

The municipal-level income verification protocol suggested and implemented for Part 2 beneficiaries aligns this task with existing competencies and workstreams. The proposal for municipal-level verification using existing information platforms was discussed with the NFOŚiGW in January and February 2020, including the details of the legislative amendments needed to do so. Although the municipalities have been conferred the right to verify household incomes for the purpose of family benefits through the law on family benefits, this right could not be automatically extended to the CAPP or SSP. The municipalities, instead, needed to be given the right to verify incomes based on the declaration of households for these programs.

The legislative amendment of the Environmental Protection Law<sup>3</sup> has put in place the provisions needed for verification of income levels to be conducted in a simplified manner. The amendment to Environment Protection Law includes the provisions related to the issuing of income certificates for the purpose of the financing from the CAPP. It obliges the municipal authorities to issue a certificate confirming the average monthly income of the household. This obligation can be then passed on to the social assistance office. Furthermore, in case of doubt, the provisions of the act assume that the municipal authorities can conduct research to clarify any concerns. The certificate can then be used by the CAPP program applicant to request an increased level of funding under the program. The certificate will be added as an attachment to the application sent to the wfosigw for an increased level of funding.

A number of steps were concluded before the October 21 2020 launch of CAPP Part 2 to establish the verification mechanism needed for Part 2 beneficiaries:

- A certificate template was agreed upon and adopted, by way of an ordinance issued with the MOCE and MOFSP.
- Training, a hotline and guidance for the municipalities, that informs them of the legislative
  amendments that have taken place and the verification protocols to be followed, have been
  undertaken and would need to be continue to be implemented to ensure smooth verification
  processes across the country.

• The costs of verification and assistance in the preparation of an application for co-financing, incurred by the municipalities, are to be covered by the NFOŚiGW, with the provision of up to PLN 100 per submitted application accompanied by an income certificate (with costs for verification aligned to those previously established for Family 500+)<sup>4</sup>. In order to receive reimbursement, municipalities will be required to sign a cooperation agreement with the WFOŚiGW to conduct tasks under the program. These municipality cooperation agreements for reimbursement are still in the process of being signed. The establishment of this verification channel, with the additional financial support given to municipalities for the tasks, poses an opportunity to further municipality participation in the program and to support them in the process. Engagement will be needed to encourage municipalities as possible to sign enhanced cooperation agreements.

#### Factors that may reduce uptake of Part 2 CAPP beneficiaries

#### Limited sources of own financing and low-credit ratings

Low-credit ratings among the Part 2 beneficiaries mean that they will not be eligible for loans from the commercial banks. Under the current program structures, they would need to use their own limited resources to finance investments upfront, and then get a back a share of it through a CAPP subsidy. This credit-constraint is likely to hinder program uptake among this group.

Some alternatives to address these constraints include, the use of reimbursable grants, or the establishment of some form of dedicated saving product. The funding sources for Part 2 CAPP include complementary financing through municipal boiler replacement programs (financed by the Regional Operational Funds), a municipality level decision for which agreements are being developed. Public funding could be sought to provide reimbursable grants to support the uptake from this group, either through municipal programs financed by the Regional Operation Funds (ROP) or through the WFOŚiGW. Dedicated savings products could be established with commercial banks, although this would require a longer time horizon for savings to accrue, with the implication that these households would be delayed in undertaking investments.

#### Inadequate separation of eligibility conditions for Part 2 CAPP and SSP

The overlap of income eligibility conditions between Part 2 capp and ssp may reduce uptake of Capp 2.0. While the risk of actual cannibalization between Capp Part 2 and ssp remains low, since ssp is established in 7 municipalities as of October 2020, potential beneficiaries to Capp Part 2 may delay investments in the anticipation of higher subsidies and would not be able to self direct to the appropriate program. Under the updated ssp, in place after the thermo-modernization and renovation act amendments, there is a clear overlap between those who are eligible (using income criteria) for ssp and the Part 2 component of Capp. This overlap is explained in clearer details in the section describing ssp below. The overlap between Capp and ssp needs to be explicitly addressed through thresholds that clearly delineate those who should receive 90% subsidies from those that should receive 60% subsidies. Without addressing this overlap, uptake of Capp Part 2 will be compromised and the pace of investments under the program will lag.

#### Limited knowledge of Part 2 program, both by the municipalities and the beneficiaries

A comprehensive outreach campaign will be needed to enhance beneficiary awareness of the program, and to ensure that the municipalities are fully aware of the verification requirements. Outreach efforts should include ensuring that the social assistance centers have up-to-date and adequate information materials to hand out to potential beneficiaries visiting the centers.

# ELIGIBILITY CONDITIONS AND VERIFICATION UNDER THE LOW-INCOME PROGRAM

#### **Eligibility conditions under the SSP**

The approach currently used in the SSP requires substantial municipal engagement to identify those in need of the highest level of financial support. A municipality can propose to undertake investments of no less than I-2% and no more than I2% of the total number of SFBS located in the municipality.

The minimum eligibility criteria related to the income of the SFB household are as follows<sup>5</sup>:

- I. *Maximum household income.* The income concept and threshold used to determine eligibility to the SSP was originally linked to the gross income concept of the Housing Benefits Act<sup>6</sup>. After the amendments to the thermo-modernization and renovation act, approved and signed by the President on November 13,2020, the income threshold for the program has been established at 175% of minimum pension for the single person SFB household (PLN 2,100) and 125% (PLN 1,500) of minimum pension for SFB households with two or more members<sup>7</sup>.
- 2. Property and wealth declaration. Under the original conditions, beneficiaries must declare that they have less than PLN 424,000 of wealth (moveable and immoveable) in their possession<sup>8</sup>. Following the amendments to SSP, beneficiaries must declare that they have less than PLN 53,000 of moveable wealth and a criminal liability clause was introduced for making false statements with respect to income and property.

# Assessment of existing eligibility criteria, implications for separation of CAPP Part Two and SSP, and implications for municipality identification of beneficiaries

The ability of SFB households to direct themselves to the relevant program (self-direction) is compromised due to overlapping income thresholds between CAPP and SSP. This results in a 'wait and see' approach that delays household decisions. Because the income thresholds of SSP cover more SFB households than the program can enroll and also fully overlap with the CAPP Part 2, SFB household self-direction will not be possible until municipal-level filters are put in place. Since few municipalities have yet engaged in the SSP program, this results in the risk of CAPP Part 2 households not enrolling in CAPP until they are clear that they're not eligible for the SSP.

More SFB households fall under the income and asset criteria of SSP than can be covered by the program; we estimate that at least a quarter of households will be unclear about which program they should apply to. Analysis from the 2018 Household Budget Survey suggests that 49% of SFBs fall under the income thresholds of the SSP<sup>9</sup>, while only a maximum of 12% of SFBs, in a given municipality, are eligible for this program. Including the self-declared asset criterion, we arrive at approximately 38% of SFB owners under the combined income and asset threshold (using the Household Wealth and Debt Survey collected by Bank of Poland in 2016). This means that just over a quarter of households will be unclear about which program they should apply to, without distinct criteria for the low-income program, that are aligned with the emerging CAPP criteria.

For the ssp, municipalities need to develop their own criteria for distinguishing those most in need. In the case of the Skawina municipality, a multidimensional ranking criterion was established to support the prioritization of households into the program. The criteria include both the sfb household's financial need and the ability of the municipality to ensure that the household meets the technical requirements to conduct the thermo-modernization within the resource envelope available.

However, this knowledge is not readily available in most municipalities, and the human resources required to engage in this manner, are also not available in all the municipalities. Discussions with the municipalities conducted in January and February 2020 highlighted that some municipalities

indeed had a proactive strategy for identifying those SFB households in high need of financial support for stove replacement and thermo-modernization. However, these municipalities tended to be concentrated in the Malopolska and Slaskie regions; municipalities that are outside of these two regions showed significantly lower levels of engagement in assessing the degree of energy poverty in their municipalities.

Based on this assessment, the following lessons emerged:

- (i) Use existing knowledge and structures of those SFB households most in need within a municipality, to avoid having to repeat needs assessments. Municipal social assistance centers already have a roster of beneficiaries that would meet the low-income program income/asset criteria, <sup>10</sup> and similarly have integrated administrative information platforms that would allow for rapid verification. Using existing platforms of beneficiaries for verification can streamline verification procedures considerably.
- (ii) Objective criteria that clearly divide the low-income recipients covered by the SSP from the CAPP Part 2, to reduce the need for the municipalities to determine their own criteria and to allow households to self-direct.

The suggestions for these recommendations are elaborated below.

#### Proposal for low-income eligibility criteria

Low-income beneficiaries are proposed to be those who:

- (i) Receive certain social assistance programs—estimated at approximately 450,000 households
- (ii) Those under a low-income threholds whose limited financial means make it difficult to finance these investments independently—estimated at approximately **650,000 households**.

#### (i) Beneficiaries of certain social assistance programs automatically qualify for greater procedural and financial assistance

Existing social assistance and family benefits programs that cover vulnerable and poor populations can be used as a basis for capturing those in the greatest financial need and those in need of procedural assistance. This perspective was corroborated through discussions with individuals who work in social protection (both at the national and local level) and with municipal officials<sup>11</sup>, who signaled that the individuals covered by four large social programs were indeed among the poorest in society and who would require significant financial and procedural help. Older people and disabled people who do not have family support were also identified as a group that could need more procedural help, even if they do not fall into the low-income group.

The following four programs were identified as having aligned concepts of financial need, while also identifying those who are likely to have difficulty undertaking investment by themselves, from an administrative perspective<sup>12</sup>:

- I. Permanent allowances (*Zasiłek stały*)<sup>13</sup> based on the Act of 12 March 2014 on social assistance. This covers elderly and/or disabled individuals who are living alone, cannot work, and do not receive support from other programs.
- 2. Periodic allowances (*Zasiłek okresowy*)<sup>14</sup> based on the Act of 12 March 2014 on social assistance. This captures low-income households with long-term illness, disability, unemployment, and lacking benefits from other programs.
- 3. Alimony fund (Świadczenie z Funduszu Alimentacyjnego)<sup>15</sup> based on the Act of 7 September 2007 on assistance to persons entitled to alimony. This captures low-income families with children who have a right to alimonies but do not receive them.

4. Family benefit (*including single-parent supplement; Zasilki rodzinne*)<sup>16</sup>. This captures low-income families with children under 18 or 25 (if a child continues education). The family must fall under the income criterion specified in the family benefit. Within this group are those who receive the special care allowance (*Specjalny zasilek opiekuńczy*)<sup>17</sup>, which covers families with a disabled adult member, who do not have the right to the attendance benefit, and who are not professionally active, due to the need to provide care for a family member with disabilities.

The housing supplement and energy allowance programs were identified as having an aligned concept of financial need and a conceptual overlap with the low-income program but, due to program design, do not provide any meaningful manner of support to SFB owners due to area restrictions for recipients. For this reason, we would not recommend including these programs in the eligibility criteria of the low-income program. However, reforms to these programs should be monitored closely, since, if the programs shift their focus to include SFBs, the program beneficiaries could then be appropriate candidates for inclusion in the low-income program.

Table 5.1 shows the share of those under different income thresholds that receive these benefits. An income cut-off of PLN 800 per capita in a multi-person household or 1120 per capita in a single-person household (using the CAPP income concept) could be used to capture for those who are the needlest—this was assessed in previous distributional analysis presented by the World Bank (2019)<sup>18</sup>. The analysis below uses the 2018 Household Budget Survey data, combined with the 2018 Energy Survey.

**TABLE 5.1** Share of those under PLN 800 in a multi-family household that receive the social assistance program.

Program (English)	Program (Polish)	% of <pln 1120<br="" 800="">that benefit</pln>	
1. Permanent allowance	Zasiłek stały	9%	
2. Periodic allowance	Zasiłek okresowy		
3. Alimony fund	Świadczenie z Funduszu Alimentacyjnego	2%	
4. Family benefit (incl. single parent supplement)	Zasiłki rodzinne	34%	
4b. Special care allowance	Specjalny zasiłek opiekuńczy	5%	
5. Social disability pension, <pln 800<="" td=""><td>Renta socjalna + kryterium dochodowe &lt;800</td><td>5%</td></pln>	Renta socjalna + kryterium dochodowe <800	5%	
Overall		46% 450,000 households	

We estimate that these social assistance and family benefits programs cover 46% of households that live in and own SFBs in need of stove upgrade and/or thermo-modernization.

# (ii) Include those who have limited incomes but do not receive social assistance or family benefits

Beneficiaries of social programs comprise just under half (46%) of those who are likely to need significant financial support to upgrade their boilers and thermo-modernize their homes—the remaining approximately 54% would also require financial support, but are not currently known to social welfare workers. The remaining 54% of SFB households include pensioners who receive minimum pensions from social insurance systems, and other households whose income is above the threshold for social assistance or family benefits, but below PLN 800/II20 per person in a multi-person/single-person household. Analysis, using the 2018 Household Budget Survey, signals that only a third of SFB households with net income below PLN 800 per person in a multi-person household (or PLN II20 in a single-person household) are able to finance the investment for the thermo-modernization of their houses.

Interviews with municipal centers confirmed the need to extend beyond the social assistance beneficiaries, since they found SFB households in their municipalities who struggled with energy bills, while not meeting the qualification requirements of existing social assistance programs.

One of the reasons why social programs only cover a share of those in need of support is that income threshold for a household to be considered eligible for social assistance benefits is set at a level lower than the highest original CAPP I.O support. The net income level that determines eligibility for social assistance is lower for most households than the CAPP I.O threshold for those receiving the highest subsidy threshold, PLN 600 per person, per household—it is PLN 528 per household member, or PLN 70I in the case of single-person households. Many SFB households, whose incomes are above these limits, still face significant risk of energy poverty. It is therefore recommended that the low-income program extend beyond the social assistance benefits to also cover SFB households whose net income is below PLN 800/II2O per person in a multi-person/single-person household.

In addition to an income criteria, a specific declaration of assets or of bank accounts could be included to screen low-income SFB households. However it may have implementation challenges that reduce its screening impact: in the absence of in-person visits to verify overall asset ownership, the declaration may only screen those households that are *a priori* less likely to engage in fraudulent behavior. The declaration could include the following stipulations that the SFB household does not own: (i) a second property other than the house that is lived in; (ii) a third car and/or that the existing cars owned are all less than five years old; (iii) the household has fewer than PLN 30,000 in their bank account (preliminary suggested amount—calibrated on the current support package for middle-income households and a preliminary analysis of reported bank balances).

# Assessment of populations served by social assistance centers and verification modalities

An assessment of municipality structures to support the eligibility criteria, verification modalities, and outreach options for low-income households done. The assessment aimed to identify channels that could be used for these needs, with the intention of linking them to the existing work structures, using and complementing the existing efforts. The assessment benefitted from inter-ministerial discussions on the needs of the low-income population, as well as interviews with municipal-level social assistance workers across five municipalities.

The assessment identified strong overlaps between the populations served by the social welfare centers—through social welfare and family benefits—and the intended beneficiaries of the low-income program. The assessment also identified complementarities between the income verification infrastructure used by municipal social welfare centers and the verification needs of the low-income program.

- Social assistance staff are not currently a conduit of information on CAPP or the SSP, due to limited directed communications and information sharing: At the local level, social workers and family assistants (asystenci rodziny) expressed an interest in informing their clients about the possibility of their participation in energy efficiency programs, and in directing them about how to receive such support. However, the staff reported limited knowledge of the CAPP or SSP programs. This was the case even for the social welfare workers that had been trained in the CAPP program, who were knowledgeable of broader clean air and energy efficiency initiatives. In these instances, no follow-up communications or trainings had been received. As a result, they noted limitations in discussing the program with their clients due to program reforms that they were not fully aware of.
- *Human resource constraints:* Municipal social welfare centers frequently provide complex support to their clients. Given the time and personnel intensive nature of the work, human resource limitations at the municipal-level social assistance centers have been noted in earlier assessments of the challenges facing the centers in delivering support to their beneficiaries. This issue was raised, in particular, for social workers who engage in home visits. Interviews signaled that support could be provided that integrates into, and builds on, the existing work programs, but that community verification or extensive assistance to those who are not clients or potential clients of social welfare offices would not be feasible from a human resource perspective. However, engagements that use the comparative advantage

of the centers' staff supporting existing clients through the transition would more naturally integrate into existing work programs, as well as be more feasible. In order to perform this function efficiently, they should establish contact with local eco-advisors, operators, or other municipal employees, who can take over further support to the families that want to participate in the low-income program.

- Concerns around the issue of heating costs: in multiple interviews, the lack of financial instruments to address potential heating cost rises was a source of concern for social assistance centers. In particular, concerns were raised about recommending a transition that could leave highly vulnerable sfb households facing rising heating costs, which they would not be able to support (apart from through *ad hoc* benefits for particular expenses).
- Systematic monitoring and outreach: an audit of social assistance centers included an assessment of the identification process for those who are in need of support (NIK, 2020). The assessment noted that only six of the 2I centers audited had systematic approaches to identify those in need ex officio, while the other centers allocated support to those who submitted requests. Social assistance centers who engage in systematic monitoring of the local communities to identify those at risk of poverty or social exclusion, are more likely to be able to inform potential beneficiaries, as part of these outreach efforts, about the low-income program. However, outreach in those centers that primarily support those who have themselves made inquiries, would be more limited.

# Proposal for extending the partnership with the existing municipal-level social assistance centers and the low-income program

A more established and formal collaboration is needed to engage municipal social assistance centers in the low-income transition. Two clear pathways for strengthened engagement have been identified:

#### (i) Provide information to clients about the low-income program

Social workers could be used as *conduits of information* for the low-income program and could facilitate participation by their clients. At the local level, social workers can inform their clients on the possibility to participate in the low-income program and direct them in receiving such support. Family assistants could additionally provide support and share information with their existing clients. Given the relatively high share of families with children that are potential clients of the SFB low-income program, another group that can be involved are family assistants (*asystenci rodz-iny*), whose tasks include, among others, supporting families in their situation, including abilities to run the household properly (which includes also the provision of sufficient heating).

Municipality interviews have highlighted that while social workers or family assistants can support outreach during regular interactions with existing beneficiaries, extensive support to clients not on their existing beneficiary list would pose significant challenges for staff. While interviews signaled the clear role of staff at the municipal social assistance centers as an outreach channel for the potential SFB household participants of the low-income program, multiple centers stressed that this could only be done for their existing, regular clients.

In order to perform this function efficiently, they should have established contacts to local eco-advisors or those who would act in an operator function (or other municipal employees) who would support the clients in the technical aspects of upgrades.

For programs in which social welfare workers do not conduct home visits, this information could be provided at the time of the annual verification or upon application. This includes family benefits, where annual verification of dependency status is needed.

# (ii) Eligibility for low-income program to SFBs households that receive certain social assistance or family benefits

The low-income program should mirror the verification approach that is currently being put in place for CAPP Part 2 beneficiaries. Concretely, this could mean using the receipt of social assistance or family benefits to confer eligibility—rather than conducting income verification for these beneficiaries, their eligibility could be conferred through verifying that they are beneficiaries of certain social assistance programs or family benefits. This would reduce processing time for municipality staff, since these households have already been subject to income verification.

#### (iii) Strengthen coordination and collaboration between the MoCE and the MoFSP

Multiple avenues for strengthening the role of municipal-level social assistance centers in the low-income program have been identified; these require national-level coordination and engagement across ministries to strengthen impact.

- Coordination across ministries is needed to support aligned policies to support the low-income transition and reach low-emission goals. The Prime Minister's Plenipotentiary for Clean Air Program could support this effort by convening and coordinating different line ministries. An inter-ministerial task force is needed to support better cooperation across ministries engaged in actions to reduce energy poverty. The objective of the taskforce would be to ensure that low-income and/or energy poor households receive coordinated support that addresses the root causes of energy poverty and that supports the low-emissions transition.
- Furthermore, a Memorandum of Understanding should be established between the Moce and the Mofsp, to clarify roles and responsibilities. This should include, who is responsible for the development, piloting and roll out of training and communications materials, as well as communicating program updates and reforms (as described in further detail below). It can also include envisaged further collaborations—such as the reform or establishment of a complementary program that covers operational expenditures.
- *Provisions to allow for data sharing approaches for future beneficiaries.* In addition, we would suggest that data sharing approaches be put in place, to allow future beneficiaries of the four social assistance programs signaled above, to have the option of sharing their contact information with the low-income program. This could allow eco-advisors, wFoŚiGw's energy managers, other municipal-level officials, and subcontractors (operators) engaged by the low-income program to contact households and explain the transition that is occurring.
- Local service providers need access to relevant program information and materials. The information that should be provided to social workers and family assistants includes basic information on the program assumptions and rules, as well as clearly stated benefits resulting from participation in the program, and information on the further steps that individuals need to take. The content of such information packages, as well as the ways of providing the information to the social assistance services, should be prepared jointly with the MOFSP, and also piloted with social workers and family assistants.
- Information should be provided at each program reform—this can be part of a broader communications strategy. While some social welfare centers interviewed had conducted a training in the CAPP program, they signaled that there had been no update since the training had been conducted, even though program evolution had occurred. They therefore did not feel equipped to offer advice on CAPP 2.0. This highlights the need to ensure that those who have been trained in the program are regularly updated on revisions.

# COMPLEMENTARY PROGRAMS NEEDED TO SUPPORT THE TRANSITION OF LOW-INCOME HOUSEHOLDS

There is a gap in the current housing benefits, social assistance, and energy policy landscape in Poland to adequately, sufficiently, and systematically, support the thermal comfort of low-income SFB households. This gap could affect participation in the low-income program. Even though support may be given to financing the investment of cleaner heating technologies and thermo-modernization of buildings, those who struggle to afford their current heating bills do not have a program to turn to, as they move from low-grade fuel and free combustibles to paying for cleaner fuels. It should be noted that not all low-income households will experience rising heating costs, indeed some households may see no changes or declines in heating bills if thermo-modernization offsets the impact of moving to potentially more expensive fuels. A program that could support segments of low-income SFB households with heating costs if needed, conditional upon upgrading to clean heat sources and investing in thermo-modernization, would reduce the uncertainty of the transition for low-income SFB household, and ensure that they are not at risk of reductions in thermal comfort. To minimize fiscal costs, these programs could be applied during a transitory period to reduce the uncertainties associated with heating bill costs and could be subsequently evaluated on the basis of continued need.

Several programs exist with overlapping objectives that can be amended to fill this gap—although their original objective was not to support heating needs. Annex 5 highlights the way these programs can be updated to better support energy poor households. Most notably, these programs are: (i) support to housing bills, and housing policy more broadly, complemented by environmental policy in terms of the energy efficiency of buildings; (ii) energy policy, which covers the prices faced by households and the availability of various energy sources; (iii) social and family assistance programs provided by the MOFSP, to support income poor and socially deprived households to meet their basic needs, including housing and thermal comfort.

However, none of the existing programs is currently able to provide systematic support to low-income SFB households for their heating needs. Two of the most notable programs—the housing allowance and electricity allowance—fail to reach those in single family buildings due to the nature of their program design. While support for fuel is provided by municipal social assistance centers, through targeted allowances (Zasiłek celowy), the assistance is ad hoc, with the objective of covering necessary basic minimum needs in a short-term manner. It is not meant as a longer-term program that can support expenditures of groups in need. Furthermore, it is not clear whether these allowances can be used for gas bills in all municipalities (due to the terminology for fuel used in the Social Assistance Act) and the number of households that can be supported varies considerably across municipalities according to budget allocation.

#### Recommendations:

- I. *Operational expenditure support*: extending existing programs to include a clean fuel support mechanism or putting in place a 'warm homes' social assistance program for the most vulnerable sfbs could stimulate the transition and support clean fuel heating costs of the segment of low-income sfb households in need of assistance to ease the transition.
- 2. *Policy package:* The operational support program could be aligned to the low-income program and the CEEB inventory, so that a program package is offered. Social assistance beneficiaries that are eligible for the low-income program could initially be offered support for the registration of heat-sources. The support would then segue, as needed, into support from the low-income heat-source and thermo-modernization program, and then support—if needed—from a transitory warm homes or existing program to support heating bills, as the household transitions to clean heating sources. As such, low-income SFB households could be offered a policy package that supports them from the inventory of their heat-source to the heat-source and thermo-modernization investments and, if needed, transitory bills support.

### **NOTES**

- Assessing the incomes of all SFB owners proved to be a bottleneck: both for applicants and for verification purposes. Furthermore, the number of subsidy thresholds meant that simple communication to potential beneficiaries around what support could be received was not feasible.
- 2. Although the inclusion of detailed guidelines, both in written and video format, helped to guide applicants through the process, applicants reported in earlier municipality interviews that researching the program and filling in the application form required substantial time. This finding applied particularly to older applicants and those with lower education levels, who are likely to need greater support to inform themselves, complete the application and follow through with the investment.
- 3. The amendments refer to Art. 411 paragraph 10g–10s of the Act of 27 April 2001 Environmental Protection Law (Journal of Laws of 2020, item 1219).
- 4. Art. 411 paragraph 10f of the Environmental Protection Legislation also includes the possibility of making wfosigw funds available to cover the costs of tasks carried out by local government units cooperating in the implementation of programs and projects in the field of environmental protection and water management as well as geological needs, or creating conditions for this implementation.
- Additional criteria include the ownership or autonomous possession of the building, the actual residence in the building and obtaining consent from all co-owners.
- 6. This uses a gross income concept that refers to average per capita monthly income in the period of three months preceding the date of submission of the application. In monetary terms, the gross income level of the household should be, as of March 1, 2019, less than PLN 1,925 per person per month (175% of minimum old age pension in a single-person household) for a single-person household and PLN 1,375 (125% of minimum old age pension in a multiperson household) per person per month for multifamily households.
- 7. This means that this income threshold is higher than for housing allowances, for social assistance and for family benefits.
- 8. As referred to in the Act of 21 June 2001 on Housing Benefits, the value of resources and assets owned by an individual should not exceed PLN 424,000, taking into account the value of a building referred to in Subsection 1 or a dwelling unit referred to in Section 6. A statement with the information on those resources and assets needs to be filled in by the individual, in accordance with the template set forth in the regulations.
- The analysis from the 2018 HBS does not include the wealth assessment. While this is included in the estimates from the Household Wealth and Debt Survey collected by the Bank of Poland in 2016.

- 10. Existing beneficiaries of permanent and temporary allowances have already undergone income and asset assessments, including in-person visits, to determine their eligibility in these programs.
- 11. Interviews conducted in January and February 2020.
- 12. It should be noted that these programs align clearly with beneficiaries identified in local identification in Skawina. In the pilot, alongside the income threshold of PLN I,028 net per person in a family (or PLN I,268 net for single person households), certain social criteria or groups were also considered. These groups conceptually overlapped with multiple programs included in this list: multigenerational families who are most likely also beneficiaries of the family benefits; households with people with disabilities, who are recipients of social disability pension or disability pension from social insurance; households of single pensioners and households of single parents.
- 13. A permanent allowance is payable to an adult in a single household who is completely incapable of work due to age or disability if: their income is lower than the income criterion of a single household member or an adult remaining in a family totally incapable of work due to age or disability, and their income as well as the income per person in the family is lower than the income criterion per person in the family. In 2018, 200,786 families received permanent allowances.
- 14. The periodic allowance is paid because of long-term illness, disability, unemployment, without the ability to maintain or acquire entitlement to benefits from other social security systems. For both the periodic and the permanent allowance, the support threshold lies below PLN 800 per person in the household: from 1 October 2018, the income criterion for a single-person household is income not exceeding PLN 701, while for a family member—PLN 528. In 2018, 310,900 families received periodic allowance.
- 15. People who have a right to alimonies pursuant to an enforcement order approved by a court. Enforcement has proved ineffective. The alimony benefit is paid up to the age of 18 or until graduation from school or university, but not longer than until the age of 25. If the entitled person has a disability certificate, then there is no age limit.
- 16. I.I million families with children aged 18 or under (25 if the child continues education, or no age limit if the child has disabilities) are eligible for this benefit.. As of November 1st, 2018, the family benefit had an income threshold of PLN 674 (per person in the family) and PLN 764 for families of a child with a disability. In cases where the income threshold is exceeded, benefits are still payable, according to the "zloty per zloty" rule—for each PLN above the income limit, the benefit is reduced by PLN I.
- 17. Ustawa z dnia 28 listopada 2003 r. o świadczeniach rodzinnych.
- World Bank, 2019, "Energy Efficiency investments in Single Family Buildings; Catching Up Regions Technical Report"

**CHAPTER 6** 

# PROPOSAL FOR A ROBUST AND SCALABLE LOW-INCOME PROGRAM

# KEY BARRIERS TO UPTAKE OF THE STOP SMOG PROGRAM (SSP)

An assessment of the SSP was conducted with the goal of considering how to support a scalable mechanism for reaching low-income beneficiaries. The assessment draws upon discussions with officials at the national, district, and municipal level, civil society actors, operators, installers, contractors, and reviews of program documents. A number of barriers were identified that limited participation in the SSP.

The low-income segment of the SFB households face two key challenges: (i) they are highly financially constrained, and would have significant difficulty financing the substantial investments that are required to upgrade their heat source and thermo-modernize their houses; and (ii) they are likely to require more hands-on engagement and support in making the transition to compliant technologies.

#### Municipality level financing gap

The low-income segment needs substantial financing to participate in the program: these SFB households have limited ability to co-finance the investment and need higher subsidy levels. Although the SSP program provides a 70% subsidy, it requires a 20 to 30% co-financing contribution from the municipalities, which is in large measure, a detriment to their participation, as most municipalities do not have this budget. An assessment of financing by the municipalities using budget data has confirmed this conclusion¹. Annex 6 contains a summary of a background piece, available upon request, on municipality finances for the low-income program and used for clean air activities (Swianiewicz, 2020).

#### Awareness and technical knowledge gap

There is lower awareness among many SFB households, and particularly low-income households, about the impacts to health from coal-fired boilers, the relevance of doing boiler replacement and thermal retrofit jointly, and about the program; as well as a lower capacity to fill out applications and determine measures. Even when municipalities have eco-advisors, these advisors are charged with multiple tasks and do not have the time needed to support applicants through the process. However, the eco-advisors are also supporting municipalities with various other programs, including the municipalities' low-emission economy plans. Energy advisors, provided by WFOŚiGW/NFOŚiGW also provide technical training to municipalities and local eco-advisors about CAPP, and have provided more than 200 CAPP workshops and is an important complement to the eco-advisors work. However, there is limited direct support they can provide to SFB beneficiaries, as they need to move from location to location within a region to train municipalities. Low-income SFBs also have limited capacity to select and supervise installers and contractors.

## Duplication of processes between municipal low carbon economy plans and low emission plans

Municipalities raised concern about the need to produce a Low Emission Program (GPN) in addition to existing low emission plans (PGN), where municipalities have specific indicators related to boiler replacement. Municipalities expressed unease at having to update the PGN and to put forward the GPN. The GPN contains a detailed description of the municipality, indicates current and planned actions to improve air quality in the city and identifies the necessary actions under the SSP. Municipalities noted that joining the SSP would mean having to update the existing plans and extend their contents, without getting financial or human resources support to do so.

#### A need for consolidated support to reduce transactions costs for municipalities

Municipalities voiced concern about procurement considerations and the work needed to formulate their own procurement documents. They requested support in creating master or template documents for the ssp, which would simplify and shorten the time for preparing program documentation.

#### Identification of households and the share of households to be covered

As described in greater detail in Chapter 5, municipalities are required to develop their own criteria and approaches for distinguishing those most in need. This requirement results in additional work for the municipalities, and also means that the cut-off between SSP and CAPP would differ across municipalities, reducing self-direction and delaying CAPP Part 2 uptake.

# PRINCIPLES FOR DEVELOPMENT OF A ROBUST AND SCALABLE LOW-INCOME SCHEME

In discussions with municipalities, association of municipalities, powiats and association of powiats two key limitations were identified: co-financing and procurement capacity. The operational capacity in municipalities varies throughout the country, with smaller municipalities having less capacity to develop public procurements for boiler replacement programs with these processes taking up to 12 months. Moreover, these municipalities often have limited budgets to co-finance a program. The powiats could provide support to some of these smaller municipalities, however they also face financial restrictions and some noted that this activity was within the competence of municipalities.

As the responsibility for the SSP has been transferred from the Mode, to be operated by NFOŚiGW, the Bank proposes that the CAPP and the SSP should be integrated under one umbrella and that creating parallel implementation structures should be avoided. Therefore, the key principle for the development of the implementation scheme for the low-income program is to use the existing CAPP implementation structure as much as possible, with adjustments limited to those that are required to serve the low-income segment. It is important to note that although the proposed model was discussed with relevant parties that in principle had a favorable opinion, it should be further discussed to see details of the implementation arrangements.

Table 6.1 describes (i) the key challenges in the low-income segment, (ii) the adjustments that the low-income program would require compared to CAPP to address those challenges, and (iii) the responsible entity to implement the activities.

**TABLE 6.1** Necessary adjustments to the existing CAPP implementation structure to serve the low-income segment

(i) Key challenges facing the low-income segment		(ii) Adjustments compared to the CAPP implementation structure	(iii) Responsible entity
Low r financial r means i	Limited ability to co-finance	Higher subsidy amount	NFOŚiGW; WFOŚiGW
	Limited ability to co-finance requires higher subsidy levels, necessitating additional eligibil- ity checks	Higher subsidy amount Confirm eligibility of beneficiary based on income check	NFOS/WFOS; Municipality
		Structural diagnosis to determine technical eligibility of building	Operator
	Low capacity to pre-finance investments	Pre-financing of investment needed	Contractor
Lower capacity to caparticipate in the program Li	Lower awareness about the program	Increased outreach	Operator; Municipali- ty; NFOŚiGW
	Limited capacity to fill out applications and determine measures	Support to complete applications; energy audit at SFB to	Operator
	Dilapidated state of SFB, especially in terms of its structure	determine structural eligibility and define measures	
	Limited capacity to select and supervise contractors	Provide a list of interested contractors, from which the beneficiary can select	NFOŚiGW
Distorted incentives due to high subsidy	Beneficiaries have limited incentives to select measures and contractors based on value-for-money and to confirm quality of work; contractors have incentives to over-price their services and equipment	Energy audit to define measures	Operator
		Provide a lit of interested contractors, from which the beneficiary can select (contractors on the list meet certain criteria). Use reference prices approaches (in which exceeding the published reference prices would need to be justified) to contain costs.	NFOŚiGW
		Training for contractors to improve their capacity and quality of works, including provision of standard constructive details (e.g., wall-to-window, wall-to-roof connection)	NFOŚiGW; Trainer

# PROPOSED IMPLEMENTATION STRUCTURE FOR THE LOW-INCOME PROGRAM

The recommended implementation structure for the low-income segment is derived from the adjustments to the CAPP implementation structure described above and based on discussions held with the municipalities (Kraków, Wielka Wieś, Ustroń, and Lublin), the association of municipalities, districts (Cieszyński, Suski, and the Association of *Powiats*), the Marshal's Office (*Małopolska*), the wfośigws (Warsaw/Mazowieckie and Gdańsk), the Nfośigw, operators that have supported CAPP or the SSP, and contractors that carry out boiler replacement and thermal renovations.

Under the proposed implementation scheme, the NFOŚiGW and the 16 WFOŚiGWS would remain responsible for the overall implementation of the low-income program. Municipalities continue to support program implementation mainly through outreach and income verification; and contractors are hired by the SFB owners to replace boilers and carry out thermal renovations. In addition, the WFOŚiGWS would hire operators to support a range of additional program implementation activities (increased outreach, support completion of applications, structural diagnostic, and technical assessment), and NFOŚiGW hires trainers to build capacity of contractors and operators, and increase the quality of work. The existing energy advisors would continue in their role of training municipalities (eco-advisors and social assistance workers) and advising SFB owners on the CAPP and proposed low-income program, thus building their capacity to conduct outreach for the program. Two additional program stakeholders to help implement the low-income program are private sector operators and trainers.

The key roles of the implementing entities—NFOŚiGW, WFOŚiGW, and municipalities—remain the same as in Capp, with additional responsibilities to serve the low-income segment. Some of the suggested activities would involve additional costs, requiring funding to be allocated to the low-income program to support the more extensive implementing modalities. The GoP is seeking additional funding for CAPP including from the EC to help cover some of these additional costs.

The key responsibilities of each stakeholder, with a focus on additional responsibilities compared to CAPP, are summarized below.

NFOŚiGW continues to be responsible for the overall program coordination and monitoring; development of all program rules, guidelines and procedures, including SFB and equipment eligibility criteria; provision of grant funds to the WFOŚiGWS; overall program communications and application platforms; overall coordination of energy advisors; and program monitoring, oversight, evaluation, and reporting. In addition, NFOŚiGW would:

- Develop and maintain a list of interested contractors to carry out boiler replacements and thermal renovations under the program. To develop and maintain this list, NFOŚiGW would conduct an outreach campaign to contractors and ask them to submit an expression of interest to be included on the list. NFOŚiGW would review and approve applications on a continuous basis or at regular time intervals. In case issues arise with a contractor during program implementation, such as inadequate quality of work, NFOŚiGW may remove a contractor from the list. Suggested criteria for their selection could follow the Krakow experience and include good financial standing, performance quality with at least three years of similar experience, and agreement to follow the principals of reference pricing for the measures (e.g., different boiler types) included in the ZUM list. It is suggested that NFOŚiGW integrates the list of interested contractors with the Energy Efficiency Experts platform (EEEP), which is currently under development and hosted by NFOŚiGW.
- *Procure trainers* through a service contract to develop and conduct trainings for operators and contactors, as described in the sections above. It is suggested that the trainings for operators and contractors could be combined with, and organized through, the planned Energy Efficiency Expert training platform (see Section 3.3). This is an important element of the low-income program, as it helps ensure low-income SFB know where to search for contractors (without needing technical knowledge) and achieve a similar quality to the investments done under the program.

• Enter into enhanced collaboration agreements with the municipalities to define the responsibilities of the municipalities in supporting outreach to the beneficiaries and confirming beneficiary eligibility based on an income check (emulating CAPP Part 2). The collaboration agreements would also include the possibility that the municipal programs (financed under the Regional Operation Programs) could be used as complementary funding for the low-income program, especially for those SFB households that would not have the possibility to have a small share of upfront capital to participate in the program. This would enable the incorporation of existing municipal boiler replacement programs to the national program and could follow the agreements with the municipalities to be developed under Part 2 of CAPP 2.0.

The **wfośigws** continue to be responsible for the reception and processing of program applications; the disbursement of grant payments against eligible expenses; the provision of technical support through energy advisors on CAPP to the municipal staff and SFB households; ex post inspections and oversight; and reporting to NFOŚiGW. In addition, the wfoŚiGWS would:

- *Hire private sector operators* through a service contract for outreach to beneficiaries, support to complete applications, structural diagnostic to determine technical eligibility of buildings, and energy audit to define measures.
- *Make direct payments to contractors* on behalf of the SFB owners upon approval of payment applications from the contractor.

The **municipalities** continue to serve as local points of access for the SFB owners and provide program information to potential applicants. The role of municipalities would be strengthened in the low-income program as they would:

- *Maintain a service desk* at the municipalities' offices and have eco-advisers and social assistance workers trained about the low-income program to support outreach, or via a service phone number. If the respective municipality has a sufficiently high capacity, it may assume the responsibility for some of the outreach activities, including the tasks for the operators; if its capacity is lower, it may rely more on private sector operators.
- *Conduct social assistance or income verification* to confirm the eligibility of the beneficiary (as discussed in Chapter 5) and send this verification to the operator.

**Operators** are an important new program implementing entity for the low-income program. Several operators are currently active in Poland offering services ranging from advising on energy efficiency measures, conducting energy audits, to verification and inspection of installations under different programs. In the proposed scheme operators would:

- *Carry out outreach activities* targeting low-income sfb households to increase awareness, provide information, and answer questions related to the low-income program.
- Support potential beneficiaries with completing applications, either in person during SFB visits or at workshops at the municipalities' premises. Operators collect the signed applications and required documentation from the SFB owners, conduct a pre-check of the applications, and reach out to the applicant to help correct any errors before they send the applications to the WFOŚiGWS.
- *Conduct structural diagnoses* of the SFBs and technical assessments of which measures (i.e., boiler replacement, thermal renovation measures) are recommended and which materials in the ZUM list should be purchased.

**Trainers** provide regular technical trainings to ensure construction quality over the duration of the program for: (i) interested operators on program procedures and criteria with a focus on the application process, structural diagnostic of buildings, and energy audits; and (ii) interested contractors on general program procedures and requirements, and good practice in work related to boiler replacement and thermal renovation in SFBS, including providing standard details.

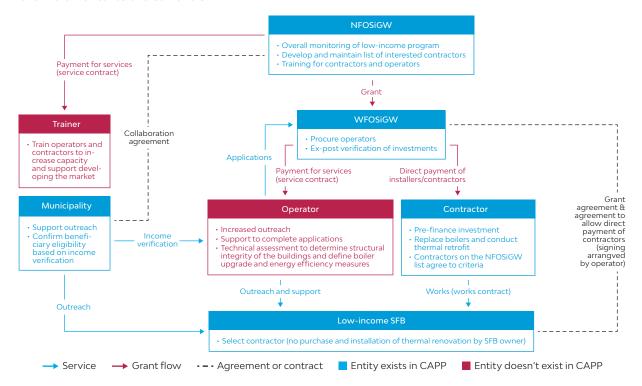
Contractors selected by the SFB owners to conduct the work would pre-finance the investment cost and implement the boiler replacement and thermal renovation based on the ZUM list. A list of interested contractors (managed by NFOŚiGW) that meet certain criteria agree to follow the principals of reference pricing is suggested to be included as part of the EEEP that the NFOŚiGW is developing.

**Low-income SFB owners** select and hire a contractor from the list maintained by the NFOŚiGW or any other contractor in the market to carry out the boiler replacement and thermal renovation. SFB owners would not be allowed to purchase and install materials and equipment on their own (as opposed to CAPP, under which this is allowed).

Integration of the proposed low-income operational scheme with existing municipal boiler replacement programs. Efforts must be made to leverage financial and operational resources to increase the uptake of low-income SFB beneficiaries—the most difficult segment of SFBS—to join the program and be able to undergo a boiler replacement and thermal retrofit. Existing municipal boiler replacement programs, financed under the Regional Operation Program (ROP) funds, could participate under the proposed low-income scheme and use the municipal funds to assist those low-income sfbs that are unable to provide 10% cofinancing through, for instance, the use of reimbursable grants. This could benefit the municipalities as: (i) they would not be involved in the public procurement and supervision of work that is especially cumbersome for those municipalities with lower capacity; (ii) they could use the same ROP allocation or other sources of complementary funding for the boiler replacement and thermal retrofits as well as benefit from national funding for energy infrastructure improvements and expansion (e.g., district heating, gas networks) to increase the number of sfb beneficiaries applying for heat source replacement and thermal retrofit through CAPP. Building synergies between the municipal boiler replacement programs and the proposed low-income program would need further discussion among the parties (the NFOŚiGW, WFOŚiGW, and the municipalities). Specific arrangements could be included in the agreements between the NFOŚiGW and the municipalities. In addition, in coordination with the Prime Minister Plenipotentiary for the Clean Air Program, different ministerial sectors (like the MocE and the Ministry of Development Funds and Regional Policy) could be engaged to help institutionalize this collaboration and build synergies from the financial resources allocated to clean air.

The recommended implementation structure for the low-income segment is displayed in the Figure 6.1.

FIGURE 6.1 Implementation structure for the low-income segment: The figure focuses on activities that are incremental to the current CAPP



# Description of proposed low-income scheme implementation process

The following section describes the overall process for the proposed low-income operational scheme (Figure 6.I), from outreach to verification of investments, focusing on activities that are incremental to the ones under the current CAPP.

#### 1. Increased outreach activities (operator, WFOŚiGW, municipality)

Operators providing service to the wfośigws would be hired through public procurement to support outreach activities targeting low-income sfb households to increase awareness, provide information, and answer questions related to the low-income program. This includes activities such as organizing information events at the municipal premises (in coordination with the municipalities), distributing flyers, visiting sfb households to help them understand the program and complete an application<sup>2</sup>, to help increase program uptake among low-income sfbs. These outreach activities are to be implemented in close cooperation with the wfośigws, which would be operating a service phone number and providing training to the municipalities on CAPP through energy advisors, and the municipalities, which would maintain a service desk at the municipal offices. If the respective municipality has a sufficiently high capacity, it may assume the responsibility for some of the outreach activities, including the tasks for the operators; if its capacity is lower, it may rely more on private sector operators under framework contracts with the wfośigws.

#### 2. Support beneficiaries with completing and submitting applications (operator)

**Operators**, in cooperation with the municipalities, would support potential SFB beneficiaries with completing applications, either in person during SFB visits, or at service desks in the municipal offices, or via the service phone number provided by the WFOŚiGW. Operators collect the signed applications and required documentation from the SFB owners, conduct a precheck of the applications, and reach out to the applicant to help correct any errors.

#### 3. Confirm beneficiary and technical eligibility (municipality, operator)

The **municipality** conducts an income verification to confirm the eligibility of the beneficiary and sends this verification to the operator. Provided the beneficiary is deemed eligible to receive support under the low-income component of the program, the **operator** conducts a structural diagnosis of the building and confirms that the boiler replacement and thermal renovation measures can be performed. The structural diagnostic, which can be requested by an operator, if it is determined the building is very old and in need of urgent repairs, will be required to ensure that no buildings that are structurally unsafe undergo thermal renovations.

#### 4. Define measures through technical assessment (operator)

Once the technical eligibility of the building is confirmed, the **operator** conducts or outsources a technical assessment to define the detailed measures to be implemented (size and specifications of new boiler; type, extent, and specification of thermal renovation measures; definition of other required works, such as the installation of radiators or temperature regulating valves, piping, and so on). The assessment must: (i) include the replacement of solid fuel boilers; (ii) include thermal renovation measures (insulation of the walls or roof, windows, and/or doors) to reduce the heating demand of the building; (iii) suggest a combination of boiler replacement and thermal renovation measures that maximizes the net present value (NPV) of the investment at an agreed discount rate under the program; and (iv) suggest a combination of measures that do not exceed a total investment amount of PLN 53,000 [maximum investment amount may be adjusted]. Finally, the operator submits the application signed by the SFB owner, the income verification, the confirmation of technical eligibility of the building, and the energy audit to the wFOSiGW for final approval. An invoice from the operator for services rendered could be considered upon submission or approval of the application.

#### 5. Select contractor (SFB owner)

Upon approval of the application by the wfosigw, the **sfb owner** selects and hires a contractor. sfb owners could select contractors from a list maintained by NFOŚiGW or any other contractor in the market to carry out the boiler replacement and thermal renovation. NFOsiGW develops and maintains this list of interested contractors to carry out boiler replacements and thermal renovations under the program to ensure that these contractors meet minimum qualification standards and agree to the use of reference prices. Contractors have to meet certain criteria to be on the list, for example:3 (i) good financial standing (declaration of non-arrears with the tax office and a civil liability insurance policy); (ii) adequate past performance (submission of a list of five investments of similar scope carried out by the contractor in the last three years, or since the start of its business activity); (iii) commitment to timeliness (commitment to implement the contracts signed with the program beneficiaries within a specified timeframe); (iv) commitment to reference prices (such as PLN/kW and w/m2 boiler output, PLN/m2 or PLN/capita for other measures); (v) provision of warranties (two-year warranty on all equipment and work); (vi) adequate staffing (employment of a minimum of three staff); and, (vii) adequate qualifications (for installation of heating, ventilation, gas, water; electrical installations and equipment; and building envelope measures). Contractors can submit applications with the required documentation for being included in the list, which are reviewed and approved by the NFOŚIGW, on a continuous basis, or at regular time intervals. In case issues arise with a contractor during program implementation, such as, an inadequate quality of work, the NFOSiGW may remove a contractor from the list. Based on the interviews conducted, some existing contractors can carry out both boiler replacement and thermal renovation, but other contractors may have to partner with others (for example, subcontracting) to be able to conduct both types of work. The EEEP, which is currently under development and hosted by the NFOŚiGW, could be expanded to include a list of interested contractors. Based on current plans, the platform would only include experts that provide energy advisory services, but the NFOŚiGW confirmed that it would be technically feasible to include contractors or other types of service providers. However, this could only be done after completing the EEEP six-month pilot that is scheduled to begin in January 2021.

#### 6. Pre-financing and implementation of work (contractor)

The **contractor** hired by the SFB owner pre-finances the investment cost and implements the boiler replacement and thermal renovation—based on agreed reference prices in the case of contractors from NFOŚiGW's list. As soon as the work is completed and the payment applications from the contractor are approved by the SFB owner and the WFOŚiGW, the contractor is paid directly by the WFOŚiGW.

#### 7. Ex post verification of investments (WFOŚiGW)

The **wfośigws** carry out ex post verification of completed investments in a sample in the low-income segment using the current CAPP procedure and protocol for ex post verification. The existing CAPP control procedure for ex post verification of investment includes, most importantly: (i) review of original documents related to the investment (for example, energy audit of the building, project documentation, attestations, original invoices, registered bills or other accounting documents, certificates, product cards, quality guarantees of the manufacturer of products and equipment, original protocols of installation of equipment or execution of assembly work, documents confirming income verification); (ii) visual inspection (including photographic documentation) of the buildings, premises, and equipment connected with the investment; (iii) measurement of partitions, windows, and doors; and (iv) request of verbal and written explanations from the beneficiary. Each control is concluded with a standardized control protocol.

#### 8. Training of operators and contractors (NFOŚiGW)

The **NFOŚiGW** hires trainers to develop and conduct trainings for: (i) interested operators on program procedures and criteria, with a focus on the application process, outreach activities to be performed under the program, visual structural diagnostic of buildings, and technical assessments

and investment work; and (ii) interested contactors on general program procedures and requirements, and good practice in work related to boiler replacement and thermal renovation in SFBS, including providing standard details (for instance, wall-to-window connection).

# Determine technical eligibility of the SFB and define measures (Step 3 and 4)

Given the high subsidy levels and thus lower incentives for the beneficiary to select measures and contractors based on value-for-money, the suggested program scheme includes additional activities (compared to CAPP) to confirm technical eligibility and define energy efficiency measures.

#### Determine technical eligibility through a structural diagnostic (Step 3)

Objective of the visual structural diagnostic: The objective of the visual structural diagnostic is to ensure that the SFB is structurally sound to undergo thermal renovations. The assessment will be conducted to consider if the building is very dilapidated and likely in need of structural repairs, in order to check its eligibility to participate in the program.

Scope and methodology of the visual structural diagnostic: A visual inspection of the SFB should cover visible parts of the foundation, basement or crawl space for water entry or accumulation, framing (floor, ceiling, roof framing) to identify deterioration and adequacy of components, roof, and the interior and exterior of building for evidence of deterioration and weather tightness that might indicate conditions affecting the overall structural integrity and stability of the building. Major defects should be reasonably evident to the experienced eye, such as diagonal cracks on walls or around doorways, and windows and doorways that do not line up, which would indicate potential structural issues. Visual inspection should also look for single continuous cracking in concrete beams, deep cracks in the foundation would also indicate structural issues. A protocol on the visual structural diagnostic should be done to ensure consistency.

#### Define energy efficiency measures through technical assessment (Step 4)

Objective of the technical assessment: The objective of the technical assessment of needs is to assess the baseline energy performance of the SFB and define a recommended set of energy efficiency measures comprising heating system and thermal renovations to be implemented under the program. In addition, the assessment will recommend additional low-cost measures that can reduce the energy bill (such as behavioral changes or replacement of lighting and appliances), which the SFB owner may undertake outside of the program.

The assessment could be carried out by a person authorized to produce an energy performance certificate (EPC) as per the Act on the Energy Performance of Buildings (published on September 9, 2014 and in force since March 9, 2015). It has been proposed that the EEEP that NFOŚIGW is developing include certified energy auditors that could be used under the low-income program.

Data collection and establishment of energy consumption baseline: The data collection phase comprises the collection of documentation and a site visit to conduct a visual inspection, interview of the SFB owner, and on-site measurements (measures of walls/windows/doors, thermal imaging, and others). The following data should be collected and reviewed:

- Electricity bills and heating fuel consumption over the previous one to two years
- Property age
- Type of walls
- Heated area
- Wall area, type, and level of insulation
- · Roof area, type, and level of insulation

- Number of windows and their dimensions, type of windows (glazing and frame type), condition of windows, and window-wall connections
- · Type, size, age, and condition of heating boiler
- Overview of heating/hot water system, including hot water pipes and their insulation
- Number and type of lights, operating hours
- Overview of key appliances (refrigerator, TV, and so on)
- Operating conditions: Building occupancy (number of people living in the household, number of people at home during working hours, rooms, and their usage), indoor temperature in the heating season

Based on the collected information, an energy consumption baseline shall be established, which will be the basis to determine energy savings and associated cost savings from the recommended energy efficiency measures. The energy consumption baseline should reflect actual energy consumption and actual expenditures for energy (that is, not be adjusted for comfort levels, such as underheating).

Evaluation of energy efficiency measures: Energy efficiency measures to be considered include:

- (i) Heating source and system
  - Replacement of solid fuel boiler by gas boiler, district heating, or pellet boiler
  - Connection to gas or district heating network, if required
  - Installations related to replacement of solid fuel boiler, including piping, radiators, temperature regulating valves, and others
- (ii) Thermal renovation
  - Thermal renovation of walls
  - Thermal renovation of roof
  - Renewal of windows and doors

For all considered measures, the equipment and material specifications and quantities, investment cost, and expected energy savings and associated energy cost savings, need to be estimated. Expected energy savings should be determined, based on the assumption that normal indoor temperatures will be maintained in the heating season, after the renovation has been completed. The recommended set of measures must (i) include replacement of solid fuel boilers; (ii) include thermal renovation measures to reduce the heating demand of the building; (iii) be the combination of boiler replacement and thermal renovation measures that maximizes the net present value (NPV) of the investment over 20 years<sup>5</sup> at an agreed discount rate under the program; and (iv) must not exceed a total investment amount of PLN 53,000 [maximum investment amount may be adjusted].

- (i) *Heating source and system:* The technical assessment report must recommend replacement of solid fuel boilers by gas boilers or connections to district heating, provided the SFB can be connected to the gas or district heating network. If such a connection is not feasible, the energy auditor should include replacement by a pellet boiler.
- (ii) *Thermal renovation:* Since the maximum investment amount may not be sufficient to undertake a full thermal renovation of the SFB, the assessor shall evaluate different scenarios for thermal renovation (for example, thermal renovation of walls and roof, thermal renovation of walls only, renewal of windows only) and recommend a combination of thermal renovation measures that, together with the selected boiler replacement, maximizes the NPV.

Recommendation of energy efficiency measures: The technical assessment report should present the recommended set of energy efficiency measures including (i) heating source and system and (ii) thermal renovation, with total investment cost, expected energy savings (electricity and/or heating fuel) and associated energy cost savings, and NPV. The recommended measures should be within the measures included in the ZUM list. For each recommended measure, the technical assessment report should specify the equipment and material specifications, as per the ZUM list, quantities, and investment cost.

#### Required agreements and contracts for the implementation scheme

Table 6.2 provides an overview of the additional agreements and contracts required to establish the described implementation scheme.

**TABLE 6.2** List of additional agreements and contracts required to establish the implementation scheme.

Agreements and contracts	Parties	Description	
Grant agreement	NFOŚiGW and WFOŚiGW	Grant agreement describing the conditions for providing grant funding to WFOŚiGW under the low-income program	
Grant agreement	WFOŚiGW and SFB owner	Grant agreement describing the conditions for providing grants to SFBs	
Agreement to allow direct payment	WFOŚiGW and SFB owner	Allow direct payment of contractors by WFOŚiGW on behalf of the SFB owner	
Collaboration agreement/MoU	NFOSiGW and municipality (gmina)	Define responsibilities of the municipality to support outreach to beneficiaries and possibility to complement funding from municipal boiler programs (financed with ROP funds)as reimbursable grants for low-income SFBs	
List of interested contractors	NFOŚiGW and contractors	Contractors need to meet certain criteria to be on the list to ensure they meet minimum qualification standards and agree to maximum prices	
Service contract (public procurement)	WFOŚiGW and operator	Contract for outreach to beneficiaries, support to complete applications, structurdiagnostic to determine technical eligibility of buildings, and technical assessmento define measures	
Works contract	SFB owner and contractor	Works contract for boiler replacement and thermal retrofit	
Service contract (public procurement)	NFOŚiGW and trainers	Contract for training of operators and contractors to increase their capacity and support developing the market	

#### **ESTIMATION OF PROGRAM COST**

An initial estimation of the program cost to cover one million low-income SFBs in need of replacement of heat sources (and thermal renovation) amounts to about PLN 38 billion (see Table 6.3 for details), out of which (i) PLN 34 billion are for subsidies paid to low-income SFB owners and (ii) PLN 3.8 billion are for program management, administration, and operation. It should be stressed that these are indicative costs based on limited cost information. Program costs will need to be refined in consultation with NFOŚiGW and WFOŚiGWS, once the key elements of the program structure for the low-income segment have been agreed upon with the stakeholders.

#### **Program subsidies**

The estimated total subsidy amount of PLN 34 million is based on a subsidy level of 90% of the eligible investment cost and the assumption that 600,000 low-income SFBs will require a thermal renovation and boiler replacement (at the maximum eligible investment cost of PLN 53,000 of CAPP) and the remaining 500,000 SFB owners will undertake a boiler replacement only, at an investment cost of PLN 13,000 f. The investment cost of PLN 13,000 per boiler replacement assumes a mix of 50% pellet boilers (at PLN 15,000) and 50% gas boilers (at PLN 11,000).

#### Program management, administration, and operation

Costs incurred for managing and administering the program by NFOŚiGW, WFOŚiGW, and municipalities include, for example, salaries, wages, and benefits for staff managing the program, taxes and fees, overhead and general and administrative costs, travel costs, depreciation costs, IT costs, external services, and legal costs. In addition, program costs for operation include costs related to program monitoring, program verification, and awareness campaigns. Since the suggested low-income program is integrated into CAPP and uses the existing CAPP implementation structure, with additional elements required to serve the low-income segment, the initial cost estimation was

based on the current CAPP program management, administration, and operation cost (estimated at four percent of the total subsidy amount) and estimated incremental costs resulting from the additional elements of the implementation scheme, including:

- *Incremental management, administration, and operation costs* (*NFOŚiGW, WFOŚiGW, and municipalities*) due to the higher effort in awareness raising, consultations, and processing applications in the low-income segment assumed at two percent of the total subsidy amount
- *Training of operators and contractors (NFOŚiGW):* The cost of the training program for operators and contractors is assumed to be PLN 1.5 million per year, over a program duration of 10 years. The cost for the training program of the planned EEEP are estimated at PLN 1.3 million per year, <sup>7</sup> and it is assumed that the trainings for operators and contractors could be organized and offered through the same training platform.
- Outreach and support applications (operators): The cost for additional outreach and support of applications by the operators are estimated at PLN 500 per SFB.<sup>8</sup>
- *Technical assessment and visual structural diagnostic (operators):* The cost for the technical assessment and structural diagnostic are estimated at PLN 1,000 per SFB (the maximum eligible cost under CAPP).
- Income verification (municipality): The assumed cost for income verification is PLN 100 per SFB.

**TABLE 6.3** Initial estimation of program cost.

Program subsidies			
	No. of SFBs	Investment per SFB (PLN)	Investment (PLN)
Boiler and thermal retrofit	600,000	53,000	31,800,000,000
Only boiler	500,000	13,000	6,500,000,000
Total investment cost	1,100,000		38,300,000,000
Total program subsidies (at 90% subsidy level)		90%	34,470,000,000
Program management, administration and operation			
	No	Cost per unit (PLN)	Cost (PLN)
Current estimated CAPP management, administration and operation cost estimated at 4% of total subsidy amount			1,380,000,000
Incremental management, administration, and operation cost estimated at 2% of total subsidy amount			690,000,000
Training of operators and contractors			15,000,000
Outreach and support applications	1,100,000	500	550,000,000
Technical assessment and structural diagnostic	1,100,000	1,000	1,100,000,000
Income verification	1,100,000	100	110,000,000
Total			3,845,000,000
Total program cost			
Program subsidies (90%)			34,470,000,000
Program management, administration and operation			3,845,000,000
Total			38,315,000,000

# CONSIDERATIONS FOR THE IMPLEMENTATION OF THE LOW-INCOME SCHEME

### Risks to be considered

Risks related to the implementation of the low-income scheme arise from the introduction of new program elements (for example, list of interested contractors, private sector operators) and aspects related to the reduced capacity of the SFB owners in the low-income segment, in terms of lower: (i) awareness, (ii) access to information capacity; (iii) technical capacity; and (iv) financial capacity. Table 6.4 describes the key risks and suggested mitigation measures.

TABLE 6.4 Risks related to the implementation of the low-income scheme

Risk		Mitigation measures
Limited municipal capacity	Smaller municipality may have limited capacity to support outreach activities to low-income households. They may also have limited financial capacity to conduct tasks related to stimulating the market and enforcing regulations, such as inspections and supporting the emissions registry.	The suggested low-income program scheme relies to a large extent on operators to conduct increased outreach and assist low-income SFB owners with applications. If a municipality's capacity is lower, outreach would rely more on the operator. Furthermore, the financial capacity of municipalities to conduct inspections would need to be reviewed, to ensure that municipalities have the capacity to support the establishment of the emissions registry and enforce fuel and boiler standards.
Lack of awareness	Limited awareness among low-income SFB households about the program could result in low participation rates. Those without access to internet and limited ability to understand and fill in applications are at greater risk of non-participation.	Increased outreach activities with on-site presence targeted at low-income households include information events at the municipalities' premises, distributing flyers, and visiting SFBs households, and operators assist SFB owners with completing applications.
Low participation rates	Fear of heating bill increases due to boiler replacement could result in low participation rates, in particular when low-income households cheap coal, wood or waste are used as heating fuel.	The program supports a combination of replacement of solid fuel boilers with thermal renovation measures to reduce the heating demand of the building, thus limiting the increase in the heating bill (provided the building is structurally sound so that thermal renovation measures can be applied). In addition, it is recommended that the government considers a financial assistance scheme to defray any remaining higher recurring costs of the cleaner fuels for the segments of vulnerable households affected. This could be under existing social assistance or housing schemes or as a stand-alone program.
No co-financing from low-income SFB owners	Some low-income households may not have access to financing to cover the remaining balance of 10% of the investment cost.	The program could leverage municipal funds (from ROP funds) to support SFB owners to cover the 10% co-financing, depending on existing local programs.
Not enough operators	In the beginning and during scale-up of the program, there may be an insuffi- cient number of private sector operators capable to fulfill the operator role under the program.	NFOŚiGW organizes trainings for (potential) operators on program procedures and criteria with a focus on the application process, outreach activities to be performed under the program, structural diagnostic of buildings, and energy audits. It is expected that operators will be established based on existing capacities in the market <sup>a</sup> .
Not enough contractors	The list of interested contractors may include an insufficient number of contractors to meet demand from the low-income program (in certain regions of Poland) due to: (i) insufficient interest of contractors to apply to be included in the list; or (ii) contractors' inability to meet the defined criteria or price caps.	NFOŚiGW would conduct an outreach campaign/call to contractors and ask them to submit applications to be included on the list of contractors, which presents a significant market opportunity to contractors given the scale of the program. The initial qualification criteria for contractors should be evaluated and revised early on during program implementation (as in Krakow's boiler replacement program) to ensure a balance between quality of contractors and a sufficient number of contractors. In addition, NFOŚiGW organizes trainings for contractors on good practice in works related to boiler replacement and thermal renovation in SFBs to build contractors' capacity.

a. For example, the Central Register of Energy Performance of Buildings includes 15,660 licensed Energy Performance Certificate (EPC) advisors who are expected to be capable of conducting a simple energy audit for SFBs. Such advisors may be able to join or establish new operators.

## **NOTES**

- 1. Swianiewicz, Pawel (2020) "Assessment of Polish municipalities financial capacity for co-financing investments under the Stop Smog Programme" Background note for cur4 final report.
- 2. Under CAPP, a two-month pilot in early 2020 using a private sector operator to conduct outreach campaigns and help residents in Wilkowice (Silesia voivodeship) and Zabierzów (Lesser Poland voivodeship) to complete CAPP applications led to 262 completed applications and showed that private operators can help increase program uptake.
- 3. These eligibility criteria have been used to establish the list of contractors in Krakow's boiler replacement program. Note that in Krakow's program, the use of a contractor from the list was recommended, but not mandatory. https://www.bip.krakow.pl/?dok\_id=105326
- 4. The procedure is described in the NFOSiGW Guidelines for the Verification of the Project under the CAPP.

- 5. For calculation of the NPV, investments are made in Year o and the energy cost savings start accumulating from Year 1.
- 6. According to data from the 2018 Household Budget Survey and the 2018 Energy Survey, approximately 40% of SFBS have undergone a thermal retrofit and would need a boiler replacement only. It is however likely that those reporting full insulation who we consider to only require a boiler upgrade may require additional thermal modernization; the proportions of requests in this segment should be monitored and cost estimates appropriately updated.
- 7. ICF Deliverable 3 Draft Report: "Design of the National Energy Efficiency Experts Platform", August 2020.
- 8. Based on interviews with operators (July 2020).

**CHAPTER 7** 

# KEY MESSAGES AND NEXT STEPS

The CAPP program has been under implementation for the past two years, and although important changes have been recently introduced that will improve its uptake, more remains to be done in order to significantly scale up its implementation pace. The program has received more than 172,700 applications and has completed 70,000 investments. The pace of implementation needs to double in order to reach the target of three million SFBs households undergoing boiler replacement and thermal modernization over the next decade. Moreover, ensuring that the middle-income SFB owners that may not be eligible to a commercial loan, as well as launching a program tailored to the low-income SFB households will be critical for an inclusive program and to reach the scale needed.

# POLICY SUPPORT AS CRUCIAL ENABLER OF DEMAND

Policy and regulation support are crucial elements to increase demand from the SFB households. Anti-smog resolutions have been important to increase demand in the southeastern regions of the country. The number of regions adopting regulations has increased, with only three regions remaining to do so. However, more needs to be done to increase awareness and understanding of the resolutions, including their effectiveness dates and the type of boilers that will be banned. Establishing the emissions registry and strengthening of enforcement mechanisms, especially at the local level, for anti-smog resolutions and other relevant regulations, like the quality of solid fuels for the residential sector, is increasingly important, in order to increase demand to join CAPP. Moreover, incorporating thermal mandates in the existing SFBs as part of the anti-smog resolutions or into national building regulation, will be important to mitigate the risks of increases in heating bills, due to fuel switching. The policy gap with respect to energy bill assistance for low-income SFBs would need to be addressed, since it is likely to delay the transition of segments of low-income households. To help overcome concerns about heating bills and support the most vulnerable SFBs transition to cleaner fuels, existing programs could be extended to include a clean fuel support mechanism or a 'warm homes' social assistance program could be established. The Plenipotentiary

# ENHANCEMENT OF CAPP PROGRAM ELEMENTS ARE STILL NEEDED

of the Prime Minister for the Clean Air Program can play an important role by providing systematic coordination across ministries, and by ensuring that the existing inter-ministerial task force supports the policies and actions needed for the successful implementation of the updated CAPP.

Some important program elements need to be enhanced to help increase uptake, including the better monitor and evaluate of the program, as well as outreach campaigns and communications programs. The program online platform could be enhanced to further consolidate all the information, to facilitate interaction with implementation partners, such as the commercial banks, and to support program monitoring and evaluation. Moreover, the program indicators, targets, and milestones need to be closely tracked to help refine resources needed, develop annual financing plans, and provide market signals to program partners so that they can adapt to the demand. This is urgently needed, to understand the program results, evaluate it and to be able to make adjustment accordingly. Monitoring should ideally be done at the municipality level, to ensure that progress is being made uniformly and to identify those areas that may need a concerted effort. Trainings for program operators and contractors should also be provided to ensure a good quality of the investments and that adequate capacity is available throughout the country. Finally, the Program needs to include a continuous communication strategy targeting different SFB income levels demographic groups, including by gender, and geographic areas, that considers the specific ASR in the voivodship, will be critical to help raise awareness on the health and air pollution impacts for non-compliant boilers, the relevance of thermal retrofit to keep bills relatively stable, the Program, its rules and conditions, and where all the information is available. All these program elements are crucial to ensure knowledge about the CAPP and increase its demand.

# COMPLETE CAPP 2.0 BY LAUNCHING THE PARTICIPATION OF COMMERCIAL BANKS

The revamped Program—CAPP 2.0—has been under implementation since May 15, 2020. However, important changes remain, most notably the incorporation of commercial banks. To finalize the incorporation of commercial banks, the following issues remain: (i) completion and signing of the legal agreement between the wfosigws and the banks; (ii) development by the BGK of the CAPP guarantee (Ecological Fund for Sureties and Guarantees); (iii) development of the basic it communications architecture between the banks, KIR, and Nfosigw; and (iv) development of the participating banks internal processes, systems, and trainings to launch the CAPP financial product. Incorporation of commercial banks into CAPP is therefore expected by April 2021, when all the needed elements should be completed.

Aligning eligibility conditions between CAPP Part 2 and the SSP is important to ensure uptake from the middle-low SFB households. Although the approved TRF Act amendments aligned the income concept among CAPP and the SSP, there will still be an overlap between those eligible for the SSP and the middle-low SFB households under CAPP. This overlap between CAPP and the SSP needs to be explicitly addressed through thresholds that clearly delineates who should receive 90% subsidies, and who should receive 60% subsidies. Without addressing this overlap, the SSP program will cannibalize the Part 2 leg of CAPP.

# DEVELOP A ROBUST AND SCALABLE PROGRAM FOR THE LOW-INCOME SFB HOUSEHOLDS

Developing a low-income scheme that is scalable and can work within the framework of CAPP is fundamental in terms of inclusion, and to increase the number of SFB households shifting to cleaner sources of heating. There are just over one million low-income SFB households that need to be provided with an operational and financial mechanism for changing to cleaner heating. The situation is more challenging due to their general lack of awareness on high emission boilers, higher technical support, and financial needs. Increased outreach, further technical assistance, and higher subsidies are needed to support these SFBs and induce them to join the low-income program.

The proposed low-income scheme builds on the key entities and roles implementing CAPP, whereby NFOŚiGW and the IÓ WFOŚiGWS remain responsible for the overall implementation of the low-income program; the municipalities continue to support program implementation, mainly through outreach and income verification; and the contractors are hired by the SFB-owners to replace boilers and carry out thermal renovations. The contractors could be paid directly by the WFOŚiGW, provided the SFB owner consents.

A proposed implementation partner critical for the low-income scheme are operators that are already existing on the ground. The low-income operational scheme proposes that wfośigws hire operators to support a range of additional program implementation activities, including increased outreach, support completion of applications, structural diagnostic, and technical assessment. Another key element is the inclusion of a list of interested contractors to carry out the boiler replacement and thermal renovations under the Program that would be managed by Nfośigw. Low-income Sfbs could then select the contractors that could be paid directly by wfośigw provided Sfbs sign an agreement to do so. It is suggested that Nfośigw integrates this list of interested contractors with the list of energy efficiency expert platform currently under development. In addition, it is proposed that Nfośigw hires trainers to build capacity of contractors and operators and increase the quality of work. Although there is overall general agreement on the proposed scheme that has been shared with contractors, operators, municipalities, Nfośigw and wfośigw, more work is needed to develop all the needed procedures and agreements in order to have it operational.

# A NEXT PHASE OF TECHNICAL SUPPORT IS NEEDED TO DEVELOP A DETAILED DESIGN OF THE LOW-INCOME SCHEME AND ENHANCE IMPORTANT ELEMENTS OF THE CAPP PROGRAM

A next phase of the Catching-up Regions Initiative is recommended to: (i) complete a detailed design that will bring the low-income scheme to full operation; and (ii) enhance the monitoring, evaluation, and oversight, as well as the overall communication strategy and training capacities needed for the overall national Program. Although the proposed operational and financial scheme for the low-income segment of the SFB households has been discussed and validated with various key stakeholders, further design work is still needed to ensure it can be implemented. A simplified application for the low-income segment, which could mirror the current CAPP application, will need to be developed. Detailed draft agreements among the different parties defining their roles and responsibilities in the low-income program are needed. Prequalification requirements, draft contracts, and training for program operators and contractors will need to be developed. A low-income program operation manual needs to be developed that clearly details how it will be implemented. Moreover, the CAPP Program will need to enhance its monitoring and evaluation systems, including a stronger program platform and the development of a fully digitalized platform. Similarly, an overall communications and outreach campaign that targets attitudes and behaviors, and the design of a communication strategy that will reach major stakeholders are crucial elements that should be included as part of the next phase of technical support to develop and ensure program demand.

### **ANNEX 1**

# MEMORANDUM OF UNDERSTANDING BETWEEN THE NFOSIGW AND THE PBA

English translation, unofficial





ZWIĄZEK BANKÓW POLSKICH

National Fund for Environmental Protection and Water Management and the Association of Polish Banks

for the purpose of creating the conditions for the participation of the banks

in the financing of projects under the Clean Air Priority Program

concluded on April 30, 2020 in Warsaw, between:

**National Fund for Environmental Protection and Water Management** based in Warsaw, ul. Konstruktorska 3a, 02-673 Warsaw, which is a state legal entity within the meaning of Art. Article 9(14) of the Law of 27 August 2009 on public finances (OH of 2019, item 869, as amended. "**NFOŚiGW**", "**NFOŚIGW**",

represented by: Piotr Woźny—President of NFOŚiGW

The Association of Polish Banks with its registered office in Warsaw, ul. Kruczkowskiego 8, entered in the register of associations, other social and professional organizations, foundations and public health care establishments of the National Court Register kept by the District Court for m.st. Warsaw and XII Commercial Division under the number KRS 0000104695, with the number NIP 526-000-09-91, hereinafter referred to as "ZBP",

represented by: Krzysztof Pietraszkiewicz—Chairman of the Board of ZBP

collectively, the following of the Agreement "Parties"

and in the presence of the Minister of Climate, which endorses the objectives of this Agreement

Page:

• Having regard to the objectives of the Clean Air Program (hereinafter referred to as the Program) aimed at reducing emissions of harmful substances into the atmosphere resulting from the heating of single-family houses using outdated heat sources and low fuel quality;

- Whereas, assuming that the Program offers funding for projects consisting of the exchange
  of old and inefficient solid fuel heat sources for modern heat sources that meet the highest standards, as well as carrying out the accompanying thermo-modernization works of the building;
- · Noting the need for owners of single-family homes to use the
- Projects under the Program, and bearing in mind the number of those owners;
- Noting that the NFOŚiGW'S March 2020 amendments to the Program provide for a significant simplification of the process of applying for funding and have created the possibility of cooperation with the banking sector by introducing as one form of grant the possibility of requesting a grant for the partial repayment of the bank credit cap;
- Whereas, assuming that some of the program grant applicants may be interested in financing a project using banking credit products;
- Whereas the Program provides for a form of subsidy on the partial repayment of the capital of a bank loan, and that the payment of the grant is subject to the benefit of the program beneficiary from a bank loan;
- Recognizing that banks have enough financial and organizational capacity to submit a loan offer to applicants for a program grant enabling their projects to be carried out;
- By taking particular interest in banks for the development of a financial offer for green-, and in particular, anti-smog projects;
- Having regard to the possibility of increasing interest in the implementation of projects under the Program through a wide network of banking branches or other sales channels made available by the banks;
- Whereas, pursuant to Article 2(IO) of the basic Regulation, the commission of the Whereas
   Article 400b (I) of Regulation (EEC) No 20 2a of the Act—Environmental Law, the purpose of the
   NFOŚiGW operation is also to create the conditions for the implementation of the environment
   and water management regulation, in particular, by providing support for the activities for
   this implementation and its promotion, as well as by cooperation with other entities, includ ing local authorities, against recipients and entities established outside the Republic of Poland;

agree as follows:

ſΙ

The aim of the Agreement is to jointly prepare the conditions for the banks' participation in the financing of the implementation of the Program, and then jointly monitor and optimize these conditions in order to ensure the widest possible integration of the banking sector in supporting the beneficiaries of the Program.

∬ 2

The intention of the Parties is:

- Preparation and implementation of the procedure for servicing by the banks, in cooperation with wfosigw, grant applications intended for the partial repayment of credit capital submitted through bank channels by applicants under the Program;
- Development and common addition of the structure and scope of the grant application for partial repayment of credit capital in such a way as to take account of the specificity of the offer and sale of credit products by the banks;

- 3. Identification of the functional requirements of the CLEAN AIR PLATFORM (hereinafter referred to as platforms), taking into account the need to digitize and communicate the parties involved in the financing process;
- 4. Develop a system for monitoring the achievement of the results of the Program;
- 5. Support the development and implementation of rules for the granting of guarantees for the repayment of loans granted under the Program to the beneficiaries with creditworthiness;
- 6. Prepare a timetable for the introduction of procedures that take into account the needs of the Program and the regulatory requirements of the banks.

∫3

- I. Will jointly prepare procedures, taking into account the following areas:
  - a. conditions for the submission of a loan application together with an application for a grant intended for the purpose of the partial repayment of the capital of the loan, including the form and scope of the grant application;
  - adjustment of the grant application for the partial repayment of the capital of the loan, including the procedure in the case of the correction of the application required by the wfosigw;
  - c. conditions for acceptance by the village of a grant for the partial repayment of the loan capital by the wfośigw;
  - d. conditions for the payment of the grant for the partial repayment of the capital of the loan
  - e. by the wfosigw;
  - f. requirements concerning the form and scope of the power of attorney granted to the bank, which will act on behalf of the borrower for a grant for the partial repayment of the capital of the loan;
  - g. the conditions for generating data from the credit application used to apply for a grant for the partial repayment of the credit capital;
  - h. the conditions and forms of cancellation of grant applications for the partial repayment of the capital of the loan.
- 2. The Parties will agree on the functionality of the target Program Support Platform and the NFOŚiGW will propose a way to implement it.
- 3. ZBP, in cooperation with the NFOSiGW, will present the needs and possibilities for sharing and exchanging data under the program's performance monitoring system.
- 4. ZBP will set out the banks' expectations regarding the loan guarantees expected and required by the banks in accordance with the terms of their operation, and take action and provide substantive support in determining the terms of these guarantees in the law and implementing documents.
- 5. The Parties shall develop the detailed terms of the cooperation agreement under the Program, which will be concluded between the NFOŚiGW/WFOWFOŚiGW and the bank, including the procedures developed by the Parties, forms of documents, communication, monitoring and promotion rules, and taking into account the applicable rules on the cooperation of banks with the NFOŚiGW and WFOŚiGW.

- 6. The Parties shall cooperate and make reasonable efforts to ensure that the activities referred to in paragraph 1, the following paragraph shall be added: 1–5 of this paragraph shall be completed by May 31, 2020.
- 7. ZBP will endeavor to ensure that banks cooperate within the Framework of the Program. The deadline for the introduction of loans dedicated to the Program will be set in contracts concluded with individual banks.

**§** 4

This Agreement shall be free of charge, each Party shall bear in its own capacity, all costs relating to the implementation of the tasks arising from this Agreement and shall not be obliged to pay remuneration to the other Party.

**§** 5

The provisions of this Agreement shall be without prejudice to the rights and obligations incumbent on the Parties by applicable law, as well as other obligations undertaken by the parties under the agreements, the provisions, and of the agreements applicable to the parties by law.

- I. The Agreement shall enter into force on the date of conclusion and shall be concluded for an indefinite period.
- 2. Either party may terminate this Agreement, with a one-month period of Notice.

§ 6

- I. The Parties shall designate the following persons for the communication and implementation of this Agreement:
  - a. From the NFOŚiGW: Katarzyna Siwkowska, Deputy Director of the Energy Efficiency Department, contact: tel. (22) 459 o8 69, e-mail: katarzyna.siwkowska@nfosigw.gov.pl,
  - b. On the part of the ZBP: Mr Arkadiusz Lewicki, director of the ZBP Team for Public And Economic Environment, contact: (22) 696 64 97, e-mail: arkadiusz.lewicki@zbp.pl.
- The implementation of this Agreement does not involve the processing of data within the meaning of the Personal Data Protection Act for which the Administrator is one of the Parties, as well as access to its databases.

**§** 7

The Agreement was drawn up in Polish, in two identical copies, one for each Party.

NFOŚiGW	ZBP

### **ANNEX 2**

# PENDING AREAS OF AGREEMENT TO FINALIZE THE DRAFT LEGAL AGREEMENT

The draft legal agreement to be signed between the wFoŚiGW and the banks is being revised and should be completed by early 2021. There are thirteen (13) areas which are pending agreement, ten (10) of which are relatively minor points, while three (3) of them need further discussion. The following are the thirteen (13) pending issues.

- I. Definition of the loan application identifier—format to be decided by Team No. 2—Platform.
- 2. Grant application—deciding on the numbering of the annex to the agreement.
- 3. Electronic signature versus trusted signature—indication by the bank of the conditions of use in the grant application process.
- 4. Amount of loan disbursed or made available—determination whether it is consistent with CAPP, and to what extent it requires the bank to inform the wfosigw about the value.
- Confirmation by the bank of the amount used (this does not contradict point 4) for eligible costs.
- 6. The account to which the funds from the grant are transferred—proposals from the banks are expected for specific wording in clauses 9 and 10 of paragraph 7.
- 7. Inconsistency of the transfer title from the wfośigw with the agreed format—the Nfośigw will present a proposal for the entry.
- 8. Lack of remuneration for implementation of the intermediation agreement—the banks are checking with tax experts whether this creates problems from the tax side, and whether the existing provision is sufficient.
- 9. Conditions of the platform's operation—are the conditions described in the form of regulations sufficient, or is a separate agreement required due to costs and fees incurred.
- 10. General Data Protection Regular (GDPR)—the draft agreement will be sent to the Inspector for consultation regarding personal data protection in the NFOŚiGW. Banks are also asked to conduct separate consultations within the scope of their competencies.
- II. Changes in CAPP after concluding an agreement with the bank—the NFOŚiGW will present proposals of provisions concerning situations where changes in the CAPP would affect procedures, products, and IT systems of the banks.
- 12. Legally protected data—the banks are to decide which document is going to regulate it—the loan agreement or grant application, along with the applicant's additional consent to disclose the data protected by the bank to the wfosigw, and which data is to be disclosed.
- 13. Perpetual ledgers and confirmation of title to property—the NFOŚiGW will consider what documents should be required, in case there is no perpetual ledger for the property, or the perpetual ledger does not include the building, and thus it cannot be confirmed that the building is a single-family house.

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### **ANNEX 3**

# SIMPLIFIED CAPP GRANT APPLICATION AND SIMPLIFIED GRANT STRUCTURE

Wypełnia Wojewód	zki Fundusz Ochrony Środowiska i Gospodar	ki Wodnej:		Data złożenia wniosku
Nr sprawy 1.			3.	
Nr wniosku 2.			x	Złożenie wniosku Korekta wniosku
			Suma l	kontrolna wyliczana jest po weryfika
			formul	
				Wersja formularza: Obowiązuje o d dnia:
	147			
	o dofinansowanie w formie dotacji	iosek na częściową spła	atę kapitału k	redytu
Przed p	w ramach programu priory: rzystąpieniem do wypełnienia wniosku należy zapoznać się z Progran	tetowego "Czyste nem Priorytetowym, Regular	powietrze"	
	We wniosku należy wypelnić zielone pola, któ	ire dotyczą Wnioskodawcy i pr	zedsięwzięcia.	
A. INFORMACJE	OGÓLNE			
A.1. DANE WNIOSI	RODAWCY			
a) Dane ogólne				
Nazwisko	A.1.1	Imię	A.1.2	2
PESEL	A.1.3			
FLJLL	ALLS	NIP 🗊	A.1.4	4
Telefon kontaktowy	A.1.5	NIP e-mail	A.1.4	
Telefon kontaktowy	A.1.5			
Telefon kontaktowy  b) Informacja o ws	A.1.5 półmałżonku	e-mail	A.1.	6
Telefon kontaktowy  b) Informacja o ws	A.1.5	e-mail	A.1.	
Telefon kontaktowy  b) Informacja o ws  Pozostaję w zw	A.1.5 półmałżonku	e-mail	A.1.	sku małżeńskim
b) Informacja o ws Pozostaję w zw A.1.7 Imię i nazwisko współmałżonka	A.1.5 półmałżonku ązku małżeńskim	e-mail  Nie poze A.1.8	A.1.d	sku małżeńskim
b) Informacja o ws Pozostaję w zw A.1.7 Imię i nazwisko współmałżonka	A.1.5  półmatżonku  ązku matżeńskim  A.1.9	e-mail  Nie poze A.1.8	A.1.d	ku małżeńskim
b) Informacja o ws Pozostaję w zw A.1.7 Imię i nazwisko współmałżonka Pozostaję w us	A.1.5  półmałżonku  ązku małżeńskim  A.1.9  cawowej wspólności majątkowej	e-mail  Nie poz- A.1.8	A.1.d	ku małżeńskim
b) Informacja o ws Pozostaję w zw A.1.7 Imię i nazwisko współmałżonka Pozostaję w us A.1.11 c) Status Wnioskor	A.1.5  półmałżonku  ązku małżeńskim  A.1.9  cawowej wspólności majątkowej	e-mail  Nie pozz A.1.8  Posiada A.1.12	A.1.6  DStaję w związ  PESEL  współmałżo  m rozdzielnośc	ku małżeńskim nka A.1.10 ć majątkową ze współmałżonką/iem
b) Informacja o ws Pozostaję w zw A.1.7 Imię i nazwisko współmałżonka Pozostaję w us A.1.11 c) Status Wniosko	A.1.5  półmałżonku  ązku małżeńskim  A.1.9  zawowej wspólności majątkowej  Jawcy  CIELEM budynku mieszkalnego  o/lokalu mieszkalnego wydzielonego w	e-mail  Nie poze A.1.8  Posiada A.1.12  Jestem jednorc	PESEL współmałżo m rozdzielności współwakaści dzinnego/lokadzinnego/lo	ku małżeńskim  nka A.1.10  ć majątkową ze współmałżonką/iem  CICIELEM budynku mieszkalnego  slu mieszkalnego wydzielonego w
b) Informacja o ws Pozostaję w zw A.1.7 Imię i nazwisko współmałżonka Pozostaję w us A.1.11 c) Status Wniosko	A.1.5  półmałżonku  ązku małżeńskim  A.1.9  zawowej wspólności majątkowej  Jawcy  CIELEM budynku mieszkalnego  o/lokalu mieszkalnego wydzielonego w	e-mail  Nie poze A.1.8  Posiada A.1.12  Jestem jednorc	DStaję w związ  PESEL współmałżo m rozdzielnośc  WSPÓŁWŁAŚC	ku małżeńskim  nka A.1.10  ć majątkową ze współmałżonką/iem  CICIELEM budynku mieszkalnego  slu mieszkalnego wydzielonego w
b) Informacja o ws Pozostaję w zw A.1.7 Imię i nazwisko współmałżonka Pozostaję w us A.1.11 c) Status Wnioskor Jestem WŁAŚC jednorodzinneg budynku jedno	A.1.5  półmałżonku  ązku małżeńskim  A.1.9  zawowej wspólności majątkowej  Jawcy  CIELEM budynku mieszkalnego  o/lokalu mieszkalnego wydzielonego w	e-mail  Nie pozz A.1.8  Posiada A.1.12  Jestem jednorc budynk	PESEL współmałżo m rozdzielności współwakaści dzinnego/lokadzinnego/lo	ku małżeńskim  nka A.1.10  ć majątkową ze współmałżonką/iem  CICIELEM budynku mieszkalnego  slu mieszkalnego wydzielonego w
b) Informacja o ws Pozostaję w zw A.1.7 Imię i nazwisko współmałżonka Pozostaję w us A.1.11 c) Status Wniosko Jestem WŁAŚC jednorodzinneę budynku jedno A.1.13 Jestem Wniosk	A.1.5  półmałżonku  ązku małżeńskim  A.1.9  cawowej wspólności majątkowej  dawcy  CIELEM budynku mieszkalnego cy/lokalu mieszkalnego wydzielonego w rodzinnym	e-mail  Nie poze A.1.8  Posiada A.1.12  Jestem jednorc budynk A.1.14  Jestem Jestem	PESEL współmałżo m rozdzielności współwakaści dzinnego/loka u jednorodzin wnioskodawci.	ku małżeńskim  nka A.1.10  ć majątkową ze współmałżonką/iem  CICIELEM budynku mieszkalnego alu mieszkalnego wydzielonego w nym
b) Informacja o ws Pozostaję w zw A.1.7 Imię i nazwisko współmałżonka Pozostaję w us A.1.11 c) Status Wniosko  Jestem WŁAŚC jednorodzinneg budynku jedno A.1.13  Jestem Wniosk PODSTAWOWI Częścią 1 Progr	A.1.5  półmatżonku  ązku małżeńskim  A.1.9  awowej wspólności majątkowej  dawcy  CIELEM budynku mieszkalnego  po/lokalu mieszkalnego wydzielonego w  rodzinnym  odawcą uprawnionym do  GO poziomu dofinansowania (zgodnie z	e-mail  Nie poze A.1.8  Posiada A.1.12  Jestem jednorc budynk A.1.14  Jestem PODWY Częścią	PESEL współmałżo m rozdzielności współwakaści dzinnego/loka u jednorodzin wnioskodawc rźszonego p 2 Programu)	ku małżeńskim  nka A.1.10  ć majątkową ze współmałżonką/iem  CICIELEM budynku mieszkalnego alu mieszkalnego wydzielonego w nym
b) Informacja o ws Pozostaję w zw A.1.7 Imię i nazwisko współmałżonka Pozostaję w us A.1.11 c) Status Wniosko Jestem WŁAŚC jednorodzinneg budynku jedno A.1.13 Jestem Wniosk	A.1.5  półmatżonku  ązku małżeńskim  A.1.9  awowej wspólności majątkowej  dawcy  CIELEM budynku mieszkalnego  po/lokalu mieszkalnego wydzielonego w  rodzinnym  odawcą uprawnionym do  GO poziomu dofinansowania (zgodnie z	e-mail  Nie poze A.1.8  Posiada A.1.12  Jestem jednorc budynk A.1.14  Jestem PODWY	PESEL współmałżo m rozdzielności współwakaści dzinnego/loka u jednorodzin wnioskodawc rźszonego p 2 Programu)	ku małżeńskim  nka A.1.10  ć majątkową ze współmałżonką/iem  CICIELEM budynku mieszkalnego alu mieszkalnego wydzielonego w nym
b) Informacja o ws Pozostaję w zw A.1.7 Imię i nazwisko współmałżonka Pozostaję w us A.1.11 c) Status Wniosko  Jestem WŁAŚC jednorodzinneg budynku jedno A.1.13  Jestem Wniosk PODSTAWOWI Częścią 1 Progr	A.1.5  półmałżonku  ązku małżeńskim  A.1.9  tawowej wspólności majątkowej  dawcy  CIELEM budynku mieszkalnego to/lokalu mieszkalnego wydzielonego w rodzinnym  odawcą uprawnionym do  GO poziomu dofinansowania (zgodnie z amu)	e-mail  Nie poze A.1.8  Posiada A.1.12  Jestem jednorc budynk A.1.14  Jestem PODWY Częścią	PESEL współmałżo m rozdzielności współwakaści dzinnego/loka u jednorodzin wnioskodawc rźszonego p 2 Programu)	ku małżeńskim  nka A.1.10  ć majątkową ze współmałżonką/iem  CICIELEM budynku mieszkalnego alu mieszkalnego wydzielonego w nym

Powiat		Į	Gmina	A.1.20
	A.1.19	•		
Miejscowość	A.1.21	•		
Ulica	A.1.22		Nr domu/lokalu	A.1.23
Kod pocztowy	A.1.24		Poczta	A.1.25
e) Adres do kore	esnondencii w Polso	e (wypełnić gdy inny niż ad	tros zamioszkania)	
		iż adres zamieszkania		
A.1.26 Województwo			Powiat	A.1.28
,	A.1.27	·		
Gmina	A.1.29	٠	Miejscowość	A.1.30
Ulica	A 1 31		Nr domu/lokalu	A 1 22
Kod pocztowy	A.1.31 A.1.33		Poczta	A.1.32 A.1.34
	A.1.33			A.1.34
.2. RACHUNEK	BANKOWY WŁA	AŚCIWY DO PRZEKAZA	NIA DOTACJI	
Nazwa banku kredy	rtującego	A.2.1		
Kwota kredytu bank kwalifikowane	kowego na koszty	A.2.2		
Kwamikowane		A.Z.Z		
		A.2.3		
Numer rachunku ba właściwego do prze		A.2.3		
właściwego do prze  B. INFORMAC.  waga: do dofinanso oniesione nie wcześn  Przedsięwzię	ekazania dotacji  JE O PRZEDSI  wania kwalifikują si	<b>ĘWZIĘCIU</b> ę koszty zgodne z załącznik	o dofinansowanie, a ta Przedsięwzięc	gramu Priorytetowego Czyste Powietrze, kże nie wcześniej niż 15 maja 2020 r. ie nierozpoczęte
właściwego do prze  B. INFORMAC.  waga: do dofinanso oniesione nie wcześi	skazania dotacji JE O PRZEDSI wania kwalifikują si niej niż 6 miesięcy p	<b>ĘWZIĘCIU</b> ę koszty zgodne z załącznik	o dofinansowanie, a ta	kże nie wcześniej niż 15 maja 2020 r.
właściwego do prze  B. INFORMAC.  waga: do dofinanso oniesione nie wcześr  Przedsięwzię	JE O PRZEDSI wania kwalifikują si niej niż 6 miesięcy p	<b>ĘWZIĘCIU</b> ę koszty zgodne z załącznik rzed datą złożenia wniosku	o dofinansowanie, a ta Przedsięwzięc	kże nie wcześniej niż 15 maja 2020 r.
właściwego do prze  B. INFORMAC. waga: do dofinanso oniesione nie wcześń  Przedsięwzię B.O.a  widoczne i wymagan	JE O PRZEDSI wania kwalifikują si niej niż 6 miesięcy p ciei rozpoczęte ne jeśli B.O.a zaznaci	<b>ĘWZIĘCIU</b> ę koszty zgodne z załącznik rzed datą złożenia wniosku  zone)  pniesienia pierwszego kosz	o dofinansowanie, a ta Przedsięwzięc B.0.b	kże nie wcześniej niż 15 maja 2020 r.
właściwego do prze  B. INFORMAC. waga: do dofinanso oniesione nie wcześń  Przedsięwzię B.O.a  widoczne i wymagan	JE O PRZEDSI wania kwalifikują si niej niż 6 miesięcy p ciei rozpoczęte ne jeśli B.O.a zaznaci	<b>ĘWZIĘCIU</b> ę koszty zgodne z załącznik rzed datą złożenia wniosku zone)	o dofinansowanie, a ta Przedsięwzięc B.0.b	kże nie wcześniej niż 15 maja 2020 r.
właściwego do prze  B. INFORMAC. waga: do dofinanso oniesione nie wcześń  Przedsięwzię B.O.a  widoczne i wymagan	JE O PRZEDSI wania kwalifikują si niej niż 6 miesięcy p ciei rozpoczęte ne jeśli B.O.a zaznaci	<b>ĘWZIĘCIU</b> ę koszty zgodne z załącznik rzed datą złożenia wniosku  zone)  pniesienia pierwszego kosz	o dofinansowanie, a ta Przedsięwzięc B.0.b	kże nie wcześniej niż 15 maja 2020 r.
właściwego do prze  B. INFORMAC.  waga: do dofinanso oniesione nie wcześń  Przedsięwzię B.O.a  widoczne i wymagan  Data rozpoczęcia p (należy wypełnić je	JE O PRZEDSI wania kwalifikują si niej niż 6 miesięcy p teie rozpoczęte ne jeśli B.O.a zaznaci przedsięwzięcia – pi śli został poniesiony	<b>ĘWZIĘCIU</b>	o dofinansowanie, a ta	kże nie wcześniej niż 15 maja 2020 r.

	lu mieszkalnego							
□ <sub>B.1.1</sub>	n jak adres zamieszkania							
Województwo	B.1.2			Powiat		B.1.3		٠
Gmina	D.1.2		Ī.	Miejscowość		B.1.5		
Ulica	B.1.4		Ш	Nr domu/lokalu		B.1.5		
	B.1.6			·		B.1.7		
Kod pocztowy	B.1.8			Poczta		B.1.9		
Wniosek dotyczy B.1.1	0 budynku mi		B.1.11			w budynku mieszkali alnego z wyodrębnior		
Numer księgi wieczystej	B.1.12 xxxx/yyyyyyyy/z	-0-	Numer d (zgodnie			B.1.13		
Na ten budynek/lokal w Programie Czyste P	I mieszkalny uzyskano ju: Powietrze   Owietrze	ż wcześniej		B.1.14 <b>X</b>	ТА	K B.1.15 NIE		
	udowy (należy wybrać	B.1.16	•	Powierzchnia ca mieszkalnego [n		a budynku/lokalu	B.1.17	
odpowiedni przedział	czasowy)							
w budynku/loi	kalu mieszkalnym prowa	dzona jest	działalność	gospodarcza w ro	zumier	niu Programu		
Powierzchnia wykorz				Liczba miesięcy				
prowadzenie działaln	ości gospodarczej [m2]	B.1.19		powierzchni na gospodarczej	prowa	dzenie działalności	B.1.20	•
% powierzchni całkov na prowadzenie dział	vitej wykorzystywanej	B.1.21						
D.Z. NODZAJ I NZL	DSIĘWZIĘCIA, KTÓF	L 2031A	INIL ZILLA	ALIZOVVAIVE VV	IVAIV	ACIT DOT INANGE	, WAINIA	
W ramach przedsięw:	zięcia zostanie zlikwidow	rane dotych	nczasowe źi	ródło ciepła	<b>.</b>		1	
W ramach przedsięw: na paliwo stałe	zięcia zostanie zlikwidow	rane dotych	nczasowe źi	ródło ciepła B.2.1	X	TAK B.2.2	NIE	
na paliwo stałe  (B.2.3 dla bra wyposażony s	zięcia zostanie zlikwidow ku likwidacji źródła ciepł w źródło ciepła. W przyg i normę europejską EN 3	a) Oświadc padku źródł	zam, że lok	B.2.1 al/budynek mieszk	alny, w	v którym realizowane j	est przedsięwz	-
na paliwo stałe  (B.2.3 dla bra wyposażony uprzenoszącej  (B.2.4 dla liku	ku likwidacji źródła ciepła w źródło ciepła. W przyp j normę europejską EN 3 widacji źródła ciepła) O: wyłącznie w źródło/a ci	a) Oświadci padku źródł 03-5. świadczam,	zam, że loka ła ciepła na , że lokal/b	B.2.1 al/budynek mieszk paliwo stałe spełr pudynek mieszkaln	alny, w	v którym realizowane j o wymagania minimur otórym realizowane je	est przedsięwz n 5 klasy wedłu est przedsięwzi	ug nor ęcie, j
na paliwo stałe  (8.2.3 dla bra wyposażony i przenoszące)  (8.2.4 dla lik wyposażony europejską Ef  (8.2.5 dla lik lokal/budynel nie spełniają oświadczam,	ku likwidacji źródła ciepła w źródło ciepła. W przyp j normę europejską EN 3 widacji źródła ciepła) O: wyłącznie w źródło/a ci	a) Oświadc: padku źródł 03-5. świadczam, epła na pa / istnieje d ealizowane redług nor aliwa gazo	zam, že lokal/t a ciepła na že lokal/t liwo stałe i odatkowe z i jest przeds my przenc wego (śrec	B.2.1  al/budynek mieszka paliwo stałe spełr  budynek mieszkaln nie spełniające wy  źródło ciepła – koc sięwzięcie, jest wyj toda o ciepła i patwodowa o ciepwziecie, jest wyj dnia z ostatnich 3	alny, w nia ond ny, w k ymagar cioł na cosażo ropejsl lat ka	v którym realizowane je o wymagania minimur którym realizowane je ń 5 klasy według noru gaz, brak zaznaczenii ny wyłącznie w źródło ą EN 303-5 i kocioi alendarzowych poprz	est przedsięwz m 5 klasy wedło est przedsięwzi my przenosząc m 8.2.4) Oświac /a ciepła na pal t gazowy. Jedr edzających rok	ęcie, j ęcie, j ej nor lczam, iwo st nocześ złoże

Dotyczy	Rodzaj przedsięwzięcia (koszty kwalifikowane zgodne z daną pozycją w Załączniku 2 lub 2a do Programu Priorytetowego Czyste Powietrze)
	(widoczne, jeśli: likwidacja dotychczasowego źródła ciepła, <b>standardowy poziom dofinansowania</b> )
	Przedsięwzięcie obejmujące demontaż nieefektywnego źródła ciepła na paliwo stałe oraz zakup i montaż pompy ciepł
B.2.6	typu powietrze-woda albo gruntowej pompy ciepła do celów ogrzewania lub ogrzewania i cwu.
	Dodatkowo moga być wykonane (dopuszcza się wybór więcej niż jednego elementu z zakresu):
	- demontaż oraz zakup i montaż nowej instalacji centralnego ogrzewania lub cwu (w tym kolektorów słonecznych),
	- zakup i montaż wentylacji mechanicznej z odzyskiem ciepła,
	zakap i montaz wentyiagi mediameznej z odzyskiem depia,
	(widoczne, jeśli: likwidacja dotychczasowego źródła ciepła, <b>standardowy poziom dofinansowania</b> , z B.1.16 wynika
	pozwolenie na budowę przed 2014 rokiem)
	- zakup i montaż ocieplenia przegród budowlanych, okien, drzwi zewnętrznych, drzwi/bram garażowych (zawiera
	również demontaż),
	- dokumentacja dotycząca powyższego zakresu: audyt energetyczny (pod warunkiem wykonania ocieplenia przegród
	budowlanych), dokumentacja projektowa, ekspertyzy.
	(widoczne, jeśli: likwidacja dotychczasowego źródła ciepła, standardowy poziom dofinansowania, z B.1.16 wynika
	pozwolenie na budowę od 2014 roku)
	- dokumentacja dotycząca powyższego zakresu: dokumentacja projektowa.
	(widoczne, jeśli: likwidacja dotychczasowego źródła ciepła, standardowy poziom dofinansowania, brak zaznaczenia
	B.2.5)
<u> </u>	Przedsięwzięcie obejmujące demontaż nieefektywnego źródła ciepła na paliwo stałe oraz:
U.L.1	- zakup i montaż źródła ciepła na paliwo stałe do celów ogrzewania lub ogrzewania i cwu
	Dodatkowo mogą być wykonane (dopuszcza się wybór więcej niż jednego elementu z zakresu):
	- demontaż oraz zakup i montaż nowej instalacji centralnego ogrzewania lub cwu (w tym kolektorów słonecznych,
	pompy ciepła wyłącznie do cwu)
	- zakup i montaż wentylacji mechanicznej z odzyskiem ciepła,
	- zakup i montaz wentyiacji mechanicznej z oużyskiem ciepia,
	College to the Heat death of the college to the col
	(widoczne, jeśli: likwidacja dotychczasowego źródła ciepła, <b>standardowy poziom dofinansowania</b> , brak zaznaczenia
	B.2.5, z B.1.16 wynika pozwolenie na budowę przed 2014 rokiem)
	- zakup i montaż ocieplenia przegród budowlanych, okien, drzwi zewnętrznych, drzwi/bram garażowych (zawiera
	również demontaż),
	- dokumentacja dotycząca powyższego zakresu: audyt energetyczny (pod warunkiem wykonania ocieplenia przegród
	budowlanych), dokumentacja projektowa, ekspertyzy.
	(widoczne, jeśli: likwidacja dotychczasowego źródła ciepła, standardowy poziom dofinansowania, brak zaznaczenia
	B.2.5, z B.1.16 wynika pozwolenie na budowę od 2014 roku)
	- dokumentacja dotycząca powyższego zakresu: dokumentacja projektowa.
	(widoczne, jeśli: likwidacja dotychczasowego źródła ciepła, standardowy poziom dofinansowania)
	Przedsiewziecie obejmujące demontaż nieefektywnego źródła ciepła na paliwo stałe oraz:
	- zakup i montaż innego źródła ciepła niż wymienione w polu B.2.6 oraz B.2.7 (powyżej) do celów ogrzewania lub
B.2.8	ogrzewania i cwu (w tym podłączenie do sieci ciepłowniczej) albo
	-zakup i montaż kotłowni gazowej w rozumieniu Załącznika 2 do Programu.
	Dodatkowo mogą być wykonane (dopuszcza się wybór więcej niż jednego elementu z zakresu):
	- demontaż oraz zakup i montaż nowej instalacji centralnego ogrzewania lub cwu (w tym kolektorów słonecznych,
	pompy ciepła wyłącznie do cwu)
	- zakup i montaż wentylacji mechanicznej z odzyskiem ciepła,
	(widoczne, jeśli: likwidacja dotychczasowego źródła ciepła, standardowy poziom dofinansowania, z B.1.16 wynika
	pozwolenie na budowę przed 2014 rokiem)
	- zakup i montaż ocieplenia przegród budowlanych, okien, drzwi zewnętrznych, drzwi/bram garażowych (zawiera
	również demontaż),
	- dokumentacja dotycząca powyższego zakresu: audyt energetyczny (pod warunkiem wykonania ocieplenia przegród
	budowlanych), dokumentacja projektowa, ekspertyzy.
	(widoczne, jeśli: likwidacja dotychczasowego źródła ciepła, <b>standardowy poziom dofinansowania</b> , z B.1.16 wynika
	pozwolenie na budowę od 2014 roku)
	- dokumentacja dotycząca powyższego zakresu: dokumentacja projektowa.
	(widoczne, jeśli: likwidacja dotychczasowego źródła ciepła, <b>podwyższony poziom dofinansowania</b> , brak zaznaczenia
$\sqcup$	B.2.5)
B.2.9	Przedsięwzięcie obejmujące demontaż nieefektywnego źródła ciepła na paliwo stałe oraz:
-	- zakup i montaż źródła ciepła na paliwo stałe do celów ogrzewania lub ogrzewania i cwu
	Dodatkowo mogą być wykonane (dopuszcza się wybór więcej niż jednego elementu z zakresu):
	- demontaż oraz zakup i montaż nowej instalacji centralnego ogrzewania lub cwu (w tym kolektorów słonecznych,
	pompy ciepła wyłącznie do cwu),
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	(widoczne, jeśli: likwidacja dotychczasowego źródła ciepła, <b>podwyższony poziom dofinansowania</b> , brak zaznaczenia
	B.2.5, z B.1.16 wynika pozwolenie na budowę przed 2014 rokiem) - zakup i montaż ocieplenia przegród budowlanych, okien, drzwi zewnętrznych, drzwi/bram garażowych (zawiera

4

Wniosek o dofinansowanie w PP Czyste Powietrze v. 6.0 bankowy – projekt 200723 1 dokumentacja dotycząca powyższego zakresu: audyt energetyczny (pod warunkiem wykonania ocieplenia przegród budowlanych), dokumentacja projektowa, ekspertyzy. (widoczne, jeśli: likwidacja dotychczasowego źródła ciepła, podwyższony poziom dofinansowania, brak zaznaczenia B.2.5, z B.1.16 wynika pozwolenie na budowę od 2014 roku)
– dokumentacja dotycząca powyższego zakresu: dokumentacja projektowa ridoczne, jeśli: likwidacja dotychczasowego źródła ciepła, **podwyższony poziom dofinanso** Przedsiewziecie obeimujące demontaż nieefektywnego źródła ciepła na paliwo stałe oraz: zakup i montaż źródła ciepła innego niż na paliwo stałe do celów ogrzewania lub ogrzewania i cwu (w tym B 2 10 podłączenie do sieci ciepłowniczej) albo zakup i montaż kotłowni gazowej w rozumieniu Załącznika 2a do Programu. Dodatkowo mogą być wykonane (dopuszcza się wybór więcej niż jednego elementu z zakresu): demontaż oraz zakup i montaż nowej instalacji centralnego ogrzewania lub cwu (w tym kolektorów słonecznych, pompy ciepła wyłącznie do cwu), (widoczne, jeśli: likwidacja dotychczasowego źródła ciepła, podwyższony poziom dofinansowania, z B.1.16 wynika ozwolenie na budowę przed 2014 rokiem - zakup i montaż ocieplenia przegród budowlanych, okien, drzwi zewnętrznych, drzwi/bram garażowych (zawiera dokumentacja dotycząca powyższego zakresu; audyt energetyczny (pod warunkiem wykonanją ocieplenją przegród budowlanych), dokumentacja projektowa, ekspertyzy. (widoczne, jeśli: likwidacja dotychczasowego źródła ciepła, podwyższony poziom dofinansowania, , z B.1.16 wynika pozwolenie na budowę od 2014 roku) dokumentacja dotycząca powyższego zakresu: dokumentacja projektowa. (widoczne, jeśli: brak likwidacji źródła ciepła, z B.1.16 wynika pozwolenie na budowę przed 2014 rokiem)) Przedsięwzięcie nie obejmujące wymiany źródła ciepła na paliwo stałe na nowe źródło ciepła, a obejmujące (dopuszcza B.2.11 się wybór więcej niż jednego elementu z zakresu): - zakup i montaż wentylacji mechanicznej z odzyskiem ciepła, - zakup i montaż ocieplenia przegród budowlanych, okien, drzwi zewnętrznych, drzwi/bram garażowych (zawiera również demontaż), - wykonanie dokumentacji dotyczącej powyższego zakresu: audytu energetycznego (pod warunkiem wykonania ocieplenia przegród budowlanych), dokumentacji projektowej, ekspertyz (widoczne, jeśli: brak likwidacji źródła ciepła, z B.1.16 wynika pozwolenie na budowę od 2014 roku) valouzire, jesii. nost nikwidedji rodu delpin, z b.1.10 wjinis pozwolenie - zakup i montaż wentylacji mechanicznej z odzyskiem ciepła. (widoczne, jeśli zaznaczono B.2.6 lub B.2.7 lub B.2.8 lub B.2.10 lub B.2.9) - zakup i montaż mikroinstalacji fotowoltaicznej. B 2 12 (B.2.13 - jeśli zaznaczone pole B.2.7 lub B.2.9) Oświadczam, że budynek/lokal mieszkalny nie jest podłączony do sieci dystrybucji gazu. C. DOCHÓD WNIOSKODAWCY C.1 – DOTYCZY BENEFICIENTÓW UPRAWNIONYCH DO PODSTAWOWEGO POZIOMU DOFINANSOWANIA W ROZUMIENIU DEFINICJI PROGRAMU PRIORYTETOWEGO CZYSTE POWIETRZE CZĘŚĆ 1 Oświadczam, że uzyskałem/am dochód roczny: stanowiący podstawę obliczenia podatku, wykazany w ostatnio złożonym zeznaniu podatkowym zgodnie z ustawą o podatku dochodowym od osób fizycznych Wartość dochodu Rodzaj PIT Za rok • • C.1.3 C.1.4 Ustalony zgodnie z wartościami określonymi w załączniku do obwieszczenia ministra właściwego do spraw rodziny w sprawie wysokości dochodu za dany rok z działalności podlegającej opodatkowaniu na podstawie przepisów o zryczałtowanym podatku dochodowym od niektórych przychodów osiąganych przez osoby fizyczne, obowiązującego na dzień złożenia wniosku oraz na podstawie dokumentów potwierdzających wysokość uzyskanego dochodu, zawierających informacje o wysokości przychodu i stawce podatku lub wysokości opłaconego podatku dochodowego w roku wskazanym w powyższym obwieszczeniu ministra 5

C.	.1.5 Wartość dochodu	C.1.6						
+ -	Rodzaj PIT				7a rok			
	-	C.1.7			Za rok		C.1.8	*
	Wysokość zapłaconego po [dla PIT-16]	datku	C.1.9					
	Wysokość przychodów ogo (dla PIT-28)	ółem	C.1.10		Stawka poo	datku	C.1.11	
	z tytułu prowadzenia gospoda dochodu ogłaszanego coroczr podatku rolnym obowiązujące 1.12	nie, w drodze o	obwieszczenia Prez					
· · ·	Wartość dochodu	C.1.13						
	Liczba ha przeliczeniowych (Użytki rolne)	C.1.14			Dochód wg	GUS	C.1.15	
$\Box$	niepodlegający opodatkowar względem rodzaju w katalogi poprzedzającym rok złożenia v 16	u zawartym w a	art.3 lit. c) ustawy o	o świadczeniach	rodzinnych,	osiągnięty		
+ -	Wartość dochodu	C.1.17						
	Rodzaj dochodu	C.1.18			Za rok			•
							C.1.19	
świadcz o udosto	uzyskane przeze mnie docho zam, że powyższe dane są prav ępnienia dokumentów potwie	wdziwe, pełne, a rdzających pow W UPRAWNI	a także, że zapoznał yższe dane na żądai ONYCH DO POI	nie upoważnion	ych podmiot	ów. MU DOF	sowania i zobow	iązuję się
świadcz o udosto 2 – Do OZUM	tam, że powyższe dane są prav ępnienia dokumentów potwie OTYCZY BENEFICJENTÓ MIENIU DEFINICJI PROGF	wdziwe, pełne, a rdzających pow W UPRAWNI RAMU PRIOF	a także, że zapoznał yższe dane na żądai ONYCH DO POI XYTETOWEGO C	nie upoważnion DWYŻSZONE ZYSTE POWI	sami udzielar ych podmiot GO POZIO ETRZE CZĘ	MU DOF	sowania i zobow	iązuję się
świadcz o udosto .2 – D OZUM	zam, że powyższe dane są prav ępnienia dokumentów potwie OTYCZY BENEFICJENTÓ MIENIU DEFINICJI PROGF Prowadzę jednoosobowe gosp C.2,1	wdziwe, pełne, a rdzających pow W UPRAWNI RAMU PRIOF	a także, że zapoznał yższe dane na żądar ONYCH DO POI RYTETOWEGO C	DWYŻSZONE ZYSTE POWI Prowadzę C.2.2	cami udzielar ych podmiot GO POZIO ETRZE CZĘ wieloosobow	MU DOF	sowania i zobow	iązuję się
świadcz o udosto .2 – Do OZUM	zam, że powyższe dane są prav ępnienia dokumentów potwie OTYCZY BENEFICJENTÓN MENIU DEFINICJI PROGR	wdziwe, pełne, a rdzających pow W UPRAWNI RAMU PRIOR podarstwo domo dochodu na jedi	a także, że zapoznał yższe dane na żądai ONYCH DO POI RYTETOWEGO C  owe	DWYŻSZONE ZYSTE POWI Prowadzę C.2.2 o gospodarstwa	cami udzielar ych podmiot GO POZIO ETRZE CZĘ wieloosobow	MU DOF	sowania i zobow	iązuję się
świadcz o udosto .2 – Do OZUM	ram, że powyższe dane są prav ępnienia dokumentów potwie OTYCZY BENEFICJENTÓN MENIU DEFINICJI PROGR Prowadze jednoosobowe gosp C.2,1 ć przeciętnego miesięcznego o	wdziwe, pełne, a rdzających pow W UPRAWNI RAMU PRIOF wodarstwo domo dochodu na jedi świadczeniem w y przychód, z tyciętny miesięcz y minimalnego y minimalnego w rdzający minimalnego w rdzający minimalnego w rdzający rdzaj	a także, że zapoznał yższe dane na żądai od pod pod pod pod pod pod pod pod pod	DWYŻSZONE ZYSTE POWI  Prowadzę  C.2.2 o gospodarstwaciwy organ)  pozarolniczej dz ny w załączony za pracę okre	GO POZIO ETRZE CZE wieloosobow  C.  ciatalności go m do wnios eślonego w	MU DOF ŚĆ 2 e gospoda 2.3	sowania i zobow FINANSOWAP rstwo domowe za rok kalendar dczeniu, nie pr	viązuję się NIA W
świadcz o udosto .2 – Do OZUM	zam, że powyższe dane są praw ępnienia dokumentów potwie OTYCZY BENEFICJENTÓN MENIU DEFINICJI PROGF Prowadzę jednoosobowe gosp C.2,1 ć przeciętnego miesięcznego c rego (zgodnie z załączonym za: Oświadczam, że mój roczny który ustalony został przet trzydziestokowo, obowiązującym w grudniu	wdziwe, pełne, a rdzających pow W UPRAWNI RAMU PRIOF Production w przychód, z tyciętny miesięcz y mynimalnego roku poprzedza	a także, że zapoznał yższe dane na żądai od pod pod pod pod pod pod pod pod pod	Prowadze c. C.2.2  o gospodarstwaciwy organ)  pozarolniczej dzny w załączony w załączony w niosku o dofii	sami udzielar ych podmiot  GO POZIO ETRZE CZĘ wieloosobow  C. iałalności go rm do wniosestonego wanosowanie.	MU DOF ŚĆ 2 e gospoda 2.3	sowania i zobow FINANSOWAP rstwo domowe za rok kalendar dczeniu, nie pr	viązuję się NIA W
sświadcz o udoste o u	ram, że powyższe dane są praw ępnienia dokumentów potwie OTYCZY BENEFICJENTÓN MENIU DEFINICJI PROGF Prowadzę jednoosobowe gosp C.2,1 ć przeciętnego miesięcznego c rego (zgodnie z załączonym za:	wdziwe, pełne, a rdzających pow W UPRAWNI RAMU PRIOF wodarstwo domo dochodu na jedr świadczeniem w y przychód, z tyciętny miesięcz y minimalnego roku poprzedzalu, o którym mo	a także, że zapoznał yższe dane na żądar o o o o o o o o o o o o o o o o o o o	Prowadze c. C.2.2  o gospodarstwaciwy organ)  pozarolniczej dzny w załączony w załączony w niosku o dofii	GO POZIO ETRZE CZE wieloosobow  C.  ciatalności go m do wnios eślonego w	MU DOF ŚĆ 2 e gospoda 2.3	sowania i zobow FINANSOWAP rstwo domowe za rok kalendar dczeniu, nie pr	niązuję się NIA W rzowy, za rzowy, za rzekroczył
séwiadcz o udoste o u	zam, że powyższe dane są praw epnienia dokumentów potwie OTYCZY BENEFICJENTÓN MENIU DEFINICJI PROGFI Prowadze jednoosobowe gosp. C.2,1 ć przeciętnego miesięcznego c rego (zgodnie z załączonym za: Oświadczam, że mój roczny który ustalony został przec trydziestokrotności kwoty obowiązującym w grudniu Wartość rocznego przychod	wdziwe, pełne, a rdzających pow w UPRAWNI RAMU PRIOF wodarstwo domo dochodu na jedr świadczeniem w y przychód, z ty ciętny miesięcz y minimalnego roku poprzedza lu, o którym mo sspodarczej wyr	a także, że zapoznał yższe dane na żądar o o o o o o o o o o o o o o o o o o o	Prowadze c. C.2.2  o gospodarstwaciwy organ)  pozarolniczej dzny w załączony w załączony w niosku o dofii	sami udzielar ych podmiot  GO POZIO ETRZE CZĘ wieloosobow  C. iałalności go rm do wniosestonego wanosowanie.	MU DOF ŚĆ 2 e gospoda 2.3	sowania i zobow FINANSOWAP rstwo domowe za rok kalendar dczeniu, nie pr	viązuję się NIA W

### E. OŚWIADCZENIA

### Oświadczenie o odpowiedzialności karnej

Oświadczam, że jest mi znana odpowiedzialność karna, w szczególności za złożenie podrobionego, przerobionego, poświadczającego nieprawdę albo nierzetelnego dokumentu albo złożenie nierzetelnego, pisemnego oświadczenia dotyczącego okoliczności mających istotne znaczenie dla uzyskania dofinansowania od wojewódzkiego funduszu ochrony środowiska i gospodarki wodnej wynikająca z art. 297 ustawy z dnia 6 czerwca 1997 roku - Kodeks karny.

### Oświadczenie o zgodności rodzaju budynku z Programem Priorytetowym

Oświadczam, że niniejszym wnioskiem o dofinansowanie jest objęty jednorodzinny budynek mieszkalny, zdefiniowany w Programie Priorytetowym Czyste Powietrze/ wydzielony w takim budynku lokal mieszkalny z wyodrębnioną księgą wieczystą. Jednocześnie oświadczam, że budynek/lokal mieszkalny nie jest wykorzystywany sezonowo.

### Oświadczenie o zapoznaniu się z niezbędną dokumentacją do złożenia wniosku

Oświadczam, że zapoznałem się z dokumentami niezbędnymi do złożenia wniosku, w szczególności z Programem Priorytetowym, regulaminem naboru wniosków i instrukcją wypełniania wniosku o dofinansowanie oraz rozumiem i akceptuję zawarte w nich prawa i oboważaki

#### Oświadczenie dotyczące kontroli

Akceptuję możliwość przeprowadzenia przez Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej (NFOŚiGW), wojewódzki fundusz ochrony środowiska i gospodarki wodnej (wfośigw) lub osoby/podmioty wskazane przez NFOŚiGW/wfośigw, kontroli w trakcie realizacji przedsięwzięcia, a także w okresie trwałości przedsięwzięcia, w budynku mieszkalnym/ lokalu mieszkalnym objętym przedsięwzięciem.

# Oświadczenie o wyrażeniu zgody na uzyskanie przez wfośigw informacji o dostępie nieruchomości do sieci energetycznej, gazowej lub ciepłowniczej

(w przypadku wnioskowania o zakup źródła ciepła na paliwo stałe (tzn. B.2.7 lub B.2.9) lub zaznaczenia pola B.2.5)

Wyrażam zgodę na wystąpienie do operatorów systemu dystrybucyjnego w rozumieniu art. 3 ust. 25) ustawy z dnia 10 kwietnia 1997 r. Prawo energetyczne lub przedsiębiorstw energetycznych w rozumieniu art. 3 pkt 12) ustawy z dnia 10 kwietnia 1997 r. Prawo energetyczne przez właściwy wfośigw za pośrednictwem NFOŚigW lub w innej formule, celem uzyskania informacji na temat dostępu do sieci energetycznej, gazowej lub ciepłowniczej nieruchomości, której dane znajdują się w części B1 niniejszego wniosku o dofinansowanie oraz rocznej ilości pobieranei energii lub paliwa gazowego.

### Oświadczenie o uniknięciu podwójnego dofinansowania

(dotyczy beneficjentów z podstawowym poziomem dofinansowania) Oświadczam, że nie uzyskałem, na ten sam zakres przedsięwzięcia, dofinansowania na budynek/lokal mieszkalny objęty wnioskiem o dofinansowanie z innych programów finansowanych ze środków publicznych w terminie od 1 stycznia 2014 r. do 30.04.2020 r., w tym w szczególności:

- w ramach regionalnych programów operacyjnych 2014 2020,
- z gminnych programów ograniczania niskiej emisji,

(Przez regionalne programy operacyjne 2014 - 2020 rozumie się programy zdefiniowane w art. 2 pkt 17 lit. c ustawy z dnia 11 lipca 2014 r. o zasadach realizacji programów w zakresie polityki spójności finansowanych w perspektywie finansowej 2014 - 2020. Przez gminne programy ograniczania niskiej emisji rozumie się programy ustanowione w drodze uchwały przez radę gminy, finansowane na podstawie art. 403 ustawy z dnia 27 kwietnia 2001 r. Prawo ochrony środowiska.)

Oświadczam, że nie uzyskałem, na ten sam zakres przedsięwzięcia, dofinansowania na budynek/lokal mieszkalny objęty wnioskiem o dofinansowanie w ramach Programu Mój Prąd (Program Mój Prąd to Program Priorytetowy Narodowego Funduszu Ochrony Środowiska i Gospodarki Wodnei.).

Oświadczam, że łączna kwota dofinansowania realizowanego przedsięwzięcia w ramach Programu ze wszystkich środków publicznych nie przekroczy 100% kosztów kwalifikowanych przedsięwzięcia.

(dotyczy beneficjentów z podwyższonym poziomem dofinansowania) Oświadczam, że nie uzyskałem, na ten sam zakres przedsięwzięcia, dofinansowania na budynek/lokal mieszkalny objęty wnioskiem o dofinansowanie w ramach Programu Mój Prąd (Program Mój Prąd to Program Priorytetowy Narodowego Funduszu Ochrony Środowiska i Gospodarki Wodnej.).

Oświadczam, że łączna kwota dofinansowania realizowanego przedsięwzięcia w ramach Programu ze wszystkich środków publicznych nie przekroczy 100% kosztów kwalifikowanych przedsięwzięcia.

### Oświadczenie dotyczące Programu Stop Smog

Oświadczam, że nie uzyskałem dofinansowania na przedsięwzięcie w ramach Programu Stop Smog (Program zainicjowany ustawą z dnia 6 grudnia 2018 r. o zmianie ustawy o wspieraniu termomodernizacji i remontów oraz niektórych innych ustaw).

### Oświadczenie o zobowiązaniach publicznoprawnych i cywilnoprawnych

Oświadczam, że wywiązuję się z ciążących na mnie zobowiązań publicznoprawnych i cywilnoprawnych na rzecz właściwych wfośigw oraz NFOŚiGW i nie mam w stosunku do nich żadnych zaległości.

### Oświadczenie o zgodności realizacji przedsięwzięcia z przepisami prawa budowlanego

Oświadczam, że jestem świadomy konieczności realizacji przedsięwzięcia zgodnie z przepisami prawa budowlanego, w szczególności uzyskania pozwolenia na budowę lub dokonania zgłoszenia robót nie wymagających pozwolenia na budowę, lub uzyskania pozwolenia konserwatora zabytków na prowadzenie robót budowlanych przy zabytku wpisanym do rejestru (jeśli dotyczy).

# Oświadczenie, że po zakończeniu przedsięwzięcia w budynku/lokalu mieszkalnym pozostaną w eksploatacji tylko źródła ciepła zgodne z wymaganiami Programu

Oświadczam, że po zakończeniu realizacji przedsięwzięcia w ramach Programu w budynku/lokalu objętym dofinansowaniem:

- nie będzie zainstalowane oraz użytkowane źródło ciepła na paliwa stałe o klasie niższej niż 5 klasa według normy przenoszącej normę europejską EN 303-5,
- wszystkie zainstalowane oraz użytkowane urządzenia służące do celów ogrzewania lub przygotowania ciepłej wody użytkowej (w
  tym kominki wykorzystywane na cele rekreacyjne) będą spełniać docelowe wymagania obowiązujących na terenie położenia
  budynku/lokalu objętego dofinansowaniem, aktów prawa miejscowego, w tym uchwał antysmogowych (rozumiane jako uchwały
  podjęte przez sejmik województwa w trybie art. 96 ustawy z dnia 27 kwietnia 2001 r. Prawo ochrony środowiska).

## Oświadczenie że zakres przedsięwzięcia jest zgodny z programem ochrony powietrza właściwym ze względu na usytuowanie budynku/lokalu mieszkalnego

Oświadczam, że zakres przedsięwzięcia jest zgodny, na dzień złożenia wniosku o dofinansowanie, z programem ochrony powietrza w rozumieniu art. 91 ustawy z dnia 27 kwietnia 2001r. – Prawo ochrony środowiska, właściwym ze względu na usytuowanie budynku.

### Oświadczenie dotyczące przetwarzania danych osobowych wnioskodawcy

INFORMACJA DLA OSÓB. KTÓRYCH DANE OSOBOWE SA PRZETWARZANE W PROGRAMIE PRIORYTETOWYM CZYSTE POWIETRZE

Zgodnie z art. 13 Rozporządzenia Parlamentu Europejskiego i Rady (UE) 2016/679 z dnia 27 kwietnia 2016 r. w sprawie ochrony osób fizycznych w związku z przetwarzaniem danych osobowych i w sprawie swobodnego przepływu takich danych oraz uchylenia dyrektywy 95/46/WE (dalej: RODO) informuję, iż:

1. Administratorem danych osobowych jest Wojewódzki Fundusz Ochrony Środowiska i Gospodarki Wodne
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- E.1 w....., ul.....
- 2. Powołany jest Inspektor Ochrony Danych, z którym można się skontaktować elektronicznie: E.2
- 3. Pani/Pana dane osobowe będą przetwarzane w celu realizacji zadań związanych z rozpatrzeniem wniosku o dofinansowanie, zawarcia i realizacji umowy, a także dla dochodzenia roszczeń lub obrony przed roszczeniami wynikającymi z przepisów prawa, jeśli takie się pojawią, zgodnie z art. 6 ust. 1 lit. b (tzn. przetwarzanie jest niezbędne do wykonania umowy, której Pani/Pan jest stroną) oraz w przypadku uzyskania dotacji lit. c (tzn. przetwarzanie jest niezbędne do wypełnienia obowiązku prawnego, który ciąży na administratorze danych jak np. obowiązek archiwizacyjny) i lit. f (tzn. przetwarzanie jest niezbędne do ustalenia, dochodzenia lub obrony roszczeń) lub art. 9 ust. 2 lit a (tzn. osoba, której dane dotyczą wyraziła zgodę) RODO.
- 4. Pani/Pana dane osobowe będą przetwarzane przez okres realizacji zadań, o których mowa w pkt 3. Okres przechowywania danych może zostać każdorazowo przedłużony o okres przedawnienia roszczeń, jeżeli przetwarzanie danych będzie niezbędne do dochodzenia roszczeń lub do obrony przed takimi roszczeniami przez administratora danych. Ponadto, okres przechowywania danych może zostać przedłużony na okres potrzebny do przeprowadzenia archiwizacji.
- 5. Posiada Pani/Pan prawo dostępu do treści swoich danych oraz prawo ich sprostowania, usunięcia, ograniczenia przetwarzania, prawo do przenoszenia danych, prawo wniesienia sprzeciwu.
- 6. Ma Pani/Pan prawo wniesienia skargi do organu nadzorczego, którym jest Prezes Urzędu Ochrony Danych Osobowych, gdy uzna Pani/Pan, iż przetwarzanie danych osobowych Pani/Pana dotyczących narusza przepisy RODO.
- 7. Podanie przez Panią/Pana danych osobowych jest dobrowolne, ale niezbędne w celu realizacji zadań związanych z rozpatrzeniem wniosku o dofinansowanie oraz zawarcia i realizacji umowy.

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8.Odbiorcami Pani/Pana danych osobowych będą te podmioty, którym administrator danych osobowych, ma obowiązek przekazywać dane na gruncie obowiązujących przepisów prawa oraz podmioty przetwarzające dane osobowe na zlecenie administratora danych osobowych, w związku z wykonywaniem powierzonego im zadania w drodze zawartej umowy lub porozumienia, m.in. banki (w celu przyjęcia wniosku o dofinansowanie, weryfikacji oraz korekty i przekazania go do administratora danych osobowych, tj. właściwego Wojewódzkiego Funduszu Ochrony Środowiska i Gospodarki Wodnej) lub dostawcy IT.

9. Dane osobowe będą powierzone Narodowemu Funduszowi Ochrony Środowiska i Gospodarki Wodnej (NFOŚiGW), między innymi ze  $względu \ na \ udostępnienie \ systemów \ informatycznych \ NFOŚiGW \ or az \ przedsiębiorstwom \ energetycznym \ w \ rozumieniu \ art. \ 3 \ pkt. \ 12) \ ustawy$ z dnia 10 kwietnia 1997 r. Prawo energetyczne lub operatorom systemu dystrybucyjnego w rozumieniu art. 3 pkt. 25) ustawy z dnia 10 kwietnia 1997 r. Prawo energetyczne w celu weryfikacji dostępu nieruchomości objętej wnioskiem o dofinansowanie do sieci energetycznej, gazowej lub ciepłowniczej, a także w celu udostępnienia środków WFOŚiGW na udzielenie Panu/Pani dotacji, kontroli wykorzystywania dotacji i realizacji przedsięwzięć, sprawozdawczości, w tym ewidencjonowania osiągniętych efektów w ramach realizacji Programu priorytetowego Czyste Powietrze.

10. Pani/Pana dane nie będą poddane zautomatyzowanemu podejmowaniu decyzji.

11. Pani/Pana dane nie będą przekazane odbiorcom w państwach znajdujących się poza Unią Europejską i Europejskim Obszarem Gospodarczym lub do organizacji miedzynarodowej.

### Oświadczenia wnioskodawcy o posiadaniu zgód: współmałżonka, współwłaściciela/wszystkich współwłaścicieli budynku/lokalu mieszkalnego – jeśli dotyczy

Oświadczam, że posiadam zgodę/zgody na przetwarzanie danych osobowych współmałżonka, współwłaściciela /wszystkich współwłaścicieli budynku /lokalu mieszkalnego oraz przekazałem im klauzulę informacyjną Administratora Danych Osobowych.

Oświadczam, że posiadam zgodę/zgody współwłaściciela /wszystkich współwłaścicieli budynku /lokalu mieszkalnego na realizację przedsięwzięcia ujętego w niniejszym wniosku o dofinansowanie

### Oświadczenie o braku wcześniejszej dotacji w Programie Czyste Powietrze na budynek/lokal mieszkalny, w którym realizowane jest przedsięwzięcie

Oświadczam, że w okresie obowiązywania bieżącej wersji Programu Priorytetowego Czyste Powietrze na budynek / lokal mieszkalny, w którym realizowane będzie przedsięwzięcie nie została udzielona dotacja w ramach tej wersji Programu

### Oświadczenie wnioskodawcy o nieubieganiu się o dofinansowanie w Programie Czyste Powietrze w innym banku

Oświadczam, że w momencie składania niniejszego wniosku o dofinansowanie, nie ubiegam się o dofinansowanie w formie dotacji na częściową spłatę kapitału kredytu w ramach programu priorytetowego "Czyste Powietrze" w żadnym innym banku, a także nie otrzymałem/am dotacji na częściową spłatę kapitału kredytu bankowego na przedsięwzięcie objęte niniejszym wnioskiem.

### F. WYMAGANE ZAŁĄCZNIKI DOŁĄCZONE DO WNIOSKU

Jeśli dotyczy:

F.1	Dokument potwierdzający prawo własności budynku mieszkalnego (jeśli dla budynku lub nieruchomości gruntowej nie została założona księga wieczysta np. akt notarialny lub inny dokument potwierdzający prawo własności budynku) (jeśli w polu C.1.12 wpisano brak).
F.2	Zaświadczenie wydane zgodnie z art. 411 ust. 10g ustawy – Prawo ochrony środowiska, przez organ właściwy ze względu nadres zamieszkania wnioskodawcy, nie wcześniej niż 3 miesiące przed datą złożenia wniosku o dofinansowanie, wskazujące przeciętny miesięczny dochód na jednego członka gospodarstwa domowego wnioskodawcy.
	Załącznik zawierający oświadczenia zgodnie z obowiązującym wzorem:  Współwłaściciela/wszystkich współwłaścicieli o wyrażeniu zgody na realizację przedsięwzięcia ujętego w

- niniejszym wniosku o dofinansowanie (jeśli budynek/lokal mieszkalny jest objęty współwłasnościa). Współmałżonka o wyrażeniu zgody na zaciagnięcie zobowiązań (jeśli wnioskodawca posiada ustawową wspólność maiatkowa).

### WARUNKI UMOWY DOTACJI NA CZĘŚCIOWĄ SPŁATĘ KAPITAŁU KREDYTU BANKOWEGO-

1. Efekt rzeczowy i ekologiczny

9

W wyniku realizacji przedsięwzięcia Beneficjent czyli osoba fizyczna, której udzielono dotację na realizację przedsięwzięcia szczegółowo opisanego w umowie, zobowiązuje się do terminowego zrealizowania zakresu rzeczowego, zgodnie z rodzajem przedsięwzięcia wskazanego w tym wniosku. W wyniku realizacji umowy o dofinansowanie zostanie osiągnięty efekt ekologiczny wynikający ze zrealizowanego zakresu rzeczowego.

### 2. Realizacja i trwałość przedsięwzięcia

- 1) Data zakończenia realizacji przedsięwzięcia wskazywana jest w końcowym wniosku o płatność. Datą tą jest data wystawienia ostatniej faktury lub równoważnego dokumentu księgowego lub innego dokumentu potwierdzającego wykonanie prac (jeżeli data tego dokumentu jest późniejsza niż ostatniej faktury).
- 2) Beneficjent zobowiązany jest zapewnić trwałość przedsiewzięcia przez okres 5 lat licząc od daty zakończenia realizacji przedsiewziecia.
- 3) Przez trwałość przedsięwzięcia rozumie się niedokonanie zmiany przeznaczenia budynku lub lokalu mieszkalnego zdefiniowanego w programie, dalej zwanego budynkiem objętym przedsięwzięciem oraz niedokonanie demontażu urządzeń, instalacji oraz wyrobów budowlanych zakupionych i zainstalowanych w trakcie realizacji przedsięwzięcia, a także niezainstalowanie dodatkowych źródeł ciepła niespełniających warunków Programu Priorytetowego Czyste Powietrze (dalej Program) i wymagań technicznych określonych w załączniku 2 albo 2a do Programu.
- 4) Zbycie budynku objętego przedsięwzięciem nie zwalnia Beneficjenta z realizacji niniejszej umowy, w szczególności zapewnienia zachowania trwałości przedsięwzięcia. W umowie zbycia nieruchomości jej nabywca może przejąć wszystkie obowiązki Beneficjenta z niniejszej umowy, wówczas to na Beneficjencie spoczywa obowiązek pisemnego poinformowania o tym fakcie wfośigw, który udzielił dofinansowania na przedsięwziecie w terminie 30 dni od daty zbycia budynku.
- 5) Do zakończenia okresu trwałości Beneficjent jest zobowiązany do przechowywania oryginałów dokumentów księgowych oraz innych dokumentów dotyczących przedsięwzięcia.

### 3. Wypłata dotacji na częściową spłatę kapitału kredytu bankowego

- 1) Środki dotacji na częściową spłatę kapitału kredytu bankowego, zwanej dalej także "dotacją", mogą być przeznaczone wyłącznie na dokonanie częściowej spłaty kapitału kredytu bankowego udzielonego na podstawie odrębnej umowy kredytu, przez bank samodzielnie wybrany przez Beneficjenta spośród banków, które zawarły umowę o współpracy z WFOŚiGW i NFOŚiGW przy wdrażaniu Programu Priorytetowego Czyste Powietrze.
- 2) Dotacją objęta jest wyłącznie część kapitału kredytu bankowego przeznaczona i wykorzystana na koszty kwalifikowane przedsięwzięcia, które zostały określone w Programie oraz jego załącznikach.
- 3) Wypłacona kwota dotacji musi być niższa niż kwota kredytu bankowego przeznaczona na koszty kwalifikowane przedsięwzięcia.
- 4) Wypłata kwoty dotacji na częściową spłatę kapitału kredytu bankowego nastąpi:
- a) po wypłaceniu ostatniej transzy kredytu bankowego i przekazaniu przez Bank potwierdzenia wysokości kwoty kredytu wypłaconego na koszty kwalifikowane przedsięwziecia oraz,
- b) po zrealizowaniu całości przedsięwzięcia, w tym po zakupie, dostawie lub montażu urządzeń oraz materiałów objętych umową dotacji,
- c) w terminie 30 dni od dnia prawidłowo złożonego i kompletnego wniosku o płatność (wniosek Beneficjenta o wypłatę kwot dotacji przygotowany na obowiązującym wzorze), na wskazany w umowie rachunek bankowy do umowy kredytu Beneficjenta prowadzony przez bank, z którym zawarł umowę kredytu bankowego przeznaczonego na finansowanie przedsięwzięcia. Do terminu wypłaty kwot dotacji, o którym mowa w zdaniu pierwszym nie wlicza się czasu przeznaczonego na przeprowadzenie kontroli podczas wizytacji końcowej mającej na celu potwierdzenie zgodnej z niniejszą umową realizacji przedsięwzięcia, a także prawdziwości informacji i oświadczeń zawartych przez Beneficjenta we wniosku o dofinansowanie oraz wnioskach o płatność.
- 5) Warunkiem przekazania kwoty dotacji jest:
- a) przedłożenie do WFOŚiGW kompletnego i poprawnie wypełnionego wniosku o płatność wraz z wymaganymi załącznikami oraz dołączenie
  potwierdzonych przez Beneficjenta za zgodność z oryginałem kopii faktur lub innych równoważnych dokumentów księgowych
  (wystawionych na Beneficjenta).
- b) potwierdzenie, że faktury lub dokumenty księgowe, o których mowa w lit. a) dotyczące kosztów kwalifikowanych przedsięwzięcia zostały opłacone z kredytu udzielonego przez bank na realizację przedsięwzięcia. Oryginały dokumentów powinny zostać opisane przez Beneficienta, że zostały "sfinansowane ze środków umowy kredytu nr....z dnia......"
- 6) Wypłata kwoty dotacji może nastąpić po zrealizowaniu zgodnie z warunkami Programu przedsięwzięcia określonego w umowie o dofinansowanie, w tym zamontowaniu źródła ciepła, o ile było to objęte zakresem przedsięwzięcia.
- 7) Dotacja nie podlega wypłacie jeżeli Beneficjent zbył przed wypłatą dotacji budynek/lokal mieszkalny objęty dofinansowaniem.
- 8) Wfośigw może wstrzymać wypłatę kwoty dotacji jeżeli wniosek o płatność jest niekompletny lub nieprawidłowo wypełniony lub nie załączono do niego wymaganych załączników lub do czasu wyjaśnienia wątpliwości dotyczących treści wniosku lub jego załączników.

### 4. Obowiązki informacyjne Beneficjenta

1) Beneficjent zobowiązuje się do niezwłocznego informowania wfośigw o wystąpieniu okoliczności mających wpływ na udzieloną dotację, w szczególności o zwiększeniu udziału procentowego powierzchni wykorzystywanej na prowadzenie działalności gospodarczej w budynku objętym przedsięwzięciem, odzyskaniu podatku VAT lub uzyskaniu dofinansowania na realizację przedsięwzięcia z innych środków publicznych, w szczególności ze środków Unii Europejskiej.

2) w przypadku gdy, po wcześniejszym dokonaniu odliczeń wydatków w ramach ulgi termomodernizacyjnej, Beneficjent otrzymał zwrot odliczonych wydatków w formie dotacji, jest zobowiązany zgodnie z przepisami podatkowymi doliczyć odpowiednio kwoty poprzednio odliczone od dochodu za rok podatkowy, w którym otrzymał ten zwrot.

### 5. Wypowiedzenie umowy i zwrot środków

- 1) Wfośigw może wypowiedzieć umowę ze skutkiem natychmiastowym w przypadku naruszeń jej postanowień, naruszenia wymogów Programu lub jego załączników, a także w przypadku złożenia nieprawdziwego oświadczenia przez Beneficjenta w umowie lub wniosku o płatność.
- 2) W przypadku wypowiedzenia umowy Beneficjent zobowiązany jest do zwrotu:
- a. kwoty wypłaconej dotacji,
- b. odsetek ustawowych w wysokości określonej w obwieszczeniu Ministra Sprawiedliwości wydanym na podstawie art. 359 § 4 ustawy z dnia 23 kwietnia 1964 r. Kodeks cywilny, naliczanych od dnia przekazania środków na rzecz Beneficjenta.
- 3) Beneficjentowi przysługuje prawo wypowiedzenia umowy z zachowaniem 14 dniowego okresu wypowiedzenia pod warunkiem zwrotu przed upływem okresu wypowiedzenia otrzymanej kwoty dotacji wraz z odsetkami ustawowymi, naliczonymi od dnia przekazania środków na rzecz Beneficjenta.
- 4) Za dzień wypowiedzenia umowy uznaje się dzień doręczenia wypowiedzenia drugiej Stronie, przy czym pismo zwrócone z adnotacją urzędu pocztowego: "nie podjęto w terminie", "adresat wyprowadził się" lub tym podobne, uznaje się za prawidłowo doręczone z dniem zwrotu przesyłki do nadawcy.

### 6. Kontrola przedsięwzięcia

- 1) NFOŚiGW/wfośigw lub podmioty zewnętrzne przez nie wyznaczone mają prawo kontrolowania sposobu wykorzystania udzielonej dotacji, w tym miejsca realizacji przedsięwzięcia.
- 2) W razie ustalenia, że wypłacona Beneficjentowi kwota dotacji jest wyższa niż kwota należnej dotacji wynikającej z rzeczywiście poniesionych przez Beneficjenta kosztów kwalifikowanych, Beneficjent jest zobowiązany do zwrotu różnicy na rachunek bankowy wfośigw wraz z odsetkami ustawowymi, naliczonymi od dnia przekazania środków na rzecz Beneficjenta.

### 7. Postanowienia końcowe

- 1) Jeżeli umowa nie stanowi inaczej, wszelkie zmiany umowy, a także wypowiedzenie wymagają formy pisemnej pod rygorem nieważności.
- 2) Przez umowę należy rozumieć niniejsze ogólne warunki umowy dotacji oraz pozostałą część wniosku o dofinansowanie, a także warunki określone we wniosku o płatność.
- 3) Ewentualne spory powstałe w związku z niniejszą umową będą rozpatrywane przez sąd powszechny właściwy dla siedziby wfośigw.

Wnosze o zawarcie umowy dotacji na warunkach opisanych w ninjejszym wniosku

[data, podpis]
Pole opcjonalne – wypełnia wfośigw

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**TABLE A3.1** Available support for different types of eligible costs — simplified grant structure from Appendix table 2 in the CAPP beneficiary facing program manual

		Part 1 b	eneficiaries	Part 2 b	eneficiaries
N.	Measure implemented	Max grant intensity	Max grant amount (PLN)	Max grant intensity	Max grant amount (PLN)
11	Connection to the district heating network including connection	50%	10,000	75%	15,000
22	Air/water heat pump	30%	9,000	60%	18,000
3	Air/water heat pump with increased energy efficiency class	45%	13,500	60%	18,000
4	Air/air heat pump	30%	3,000	60%	6,000
5	Ground source heat pump with increased energy efficiency class	45%	20,250	60%	27,000
6	Condensing gas boiler	30%	4,500	60%	9,000
7	Gas boiler room (gas connection and internal installation)	45%	6,750	75%	11,250
8	Condensing oil boiler	30%	4,500	60%	9,000
9	Boiler for coal	30%	3,000	60%	6,000
10	Wood gasifying boiler	30%	6,000	60%	12,000
11	Wood pellet boiler	30%	6,000	60%	12,000
12	Wood pellet boiler of a higher standard	45%	9,000	60%	12,000
13	Electrical heating	30%	3,000	60%	6,000
14	Central heating installation and DHW installation	30%	4,500	60%	9,000
15	Mechanical ventilation with heat recovery	30%	5,000	60%	10,000
16	Photovoltaic micro installation	50%	5,000	50%	5,000

Source: https://czystepowietrze.gov.pl/do-pobrania/

### **ANNEX 4**

# OVERVIEW OF ENERGY POVERTY MEASUREMENT AND INCIDENCE IN POLAND

Energy poverty has been identified by the Polish Government as a serious problem with social, economic, environmental, and health implications. Until 2018, there was no official definition of the phenomenon in Poland that would determine the parameters qualifying a household as energy poor. In 2018, the Polish Ministry of Energy requested technical support from the Structural Reform Supporting Service (SRSS) of the European Commission to define, measure, and monitor energy poverty in Poland<sup>1</sup>. The Institute for Structural Research (IBS) conducted this work and reported to an informal low-income working group on the findings of this analysis<sup>2</sup>. The assessment was informed by discussions in an informal working group on supporting the low-emissions transition for low-income households.

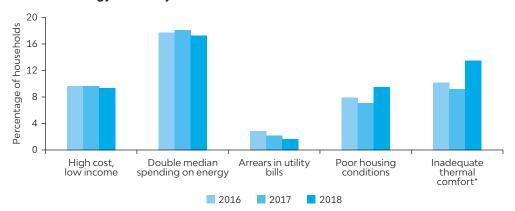
# ENERGY POVERTY MEASURES DEVELOPED FOR POLAND

Energy poverty is considered to occur when a household is unable to afford adequate warmth, cooling, lighting, and the energy to power appliances, due to a combination of low income, high energy expenditure, and poor energy efficiency of their homes. Since it is considered to be a multidimensional concept, it is not readily captured with a single indicator<sup>3</sup>. Households suffer from difficulty meeting their energy needs due to multiple reasons (1BS, 2018), including, but not limited to: (i) the relatively large area of some single-family buildings, particularly those in rural areas, compared to the number of residents, which results in a higher than average cost of energy; (ii) the poor condition of some single-family buildings and limited investment in thermo-modernization; (iii) the lower incomes of those living in the villages and small towns, who make up the majority of single-family building owners in Poland.

Five definitions of energy poverty were presented, which included both specific and extensive concepts of energy poverty. An estimated 300,000 to almost 2.5 million households in Poland were estimated to be affected by energy poverty, using these conceptualizations:

- I. High cost-low income concept: if a household's income, after needed energy costs, falls below the defined poverty line, and the share of its income spent on energy is above the national median.
- 2. **Twice the median share of energy expenditures:** if a household's share of energy expenditures, in income, is more than twice the national median share.
- 3. **Inability to pay utility bills on time:** a self-reported indicator capturing whether a household reports being in arrears on their utility bill.
- 4. Living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in the window frames or floor: this captures the main elements of energy poverty, identifying a root cause.
- 5. **Inadequate thermal comfort in winter:** the ability to pay to keep a home adequately warm covers the standard definition of an energy poor household<sup>4</sup>.

**FIGURE A4.1** Five complementary measures of energy poverty for capturing the population that are unable to afford adequate energy services due to low-incomes or limited energy efficiency



Source: IBS (2018) for 2016 and 2017, World Bank staff calculations using HBS 2018 for 2018.

\* In 2016 and 2017, this is a proxy indicator of the efficiency of the heating system that keeps the dwelling warm. In 2018, it should be noted that the survey measurement of this indicator changed to also incorporate whether a house could be kept sufficiently cold in the summer, potentially explaining the slight rise in the indicator in 2018.

# SNAPSHOT OF THE CHARACTERISTICS OF THE ENERGY POOR

- Most indicators of energy poverty are higher in households occupying detached houses. Approximately 16% of the residents living in SFBS were estimated to be energy poor in 2018 using the High-Cost, Low-Income measure of energy poverty. In rural areas, this rises to 19.3% of single-family buildings. An estimated 73% of the energy poor live in rural areas. Using subjective measures of energy inadequacy, 10.5% of the households living in SFBS in 2018, report having difficulty adequately heating their buildings in the winter. Among the poorest 20% of those living in SFBS, 16% of households report difficulty sufficiently heating themselves in winter, compared to 5.6% of better off households.
- The incidence of energy poverty is higher among households which occupy older dwellings which, by definition, signals a link between energy poverty and the energy inefficiency of buildings.
- Energy poor most often use inefficient, outdated heat sources. Energy poverty is more notable in buildings where **local heating systems** are in use. Local heat sources are usually more expensive in maintenance than central district heating.
- Higher energy poverty rates are found among those receiving social assistance, farmers, and blue-collar workers.

A number of strategies have been identified across Europe to support the root causes of an inability to afford adequate warmth, cooling, lighting, and the energy to power appliances, due to a combination of low income, high energy expenditure, and poor energy efficiency<sup>6</sup>. The most prominent approach—and highly relevant to Poland—is to support initiatives that moderate energy demand, through investment in more energy-efficient housing structures and technologies.

Two policy groups can be considered for raising energy efficiency and alleviating the inability to afford needed energy services in low-income households:

I. Energy efficiency policies for households, including those that specifically address the barriers and constraints faced by low-income households, either through tailoring activities to this group, or through a specific targeting of this group. These policies aim at structural improvements in energy efficiency, and therefore, can take time to have an impact.

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2. Social policies that address energy affordability in low-income households. These policies, which include reduced electricity tariffs and social assistance support for housing services, aim to support the affordability of energy services, but do not address the structural causes of energy poverty.

### RELEVANCE OF ENERGY POVERTY MEASURES FOR IDENTIFYING HOUSEHOLDS IN NEED OF SUPPORT FOR INVESTMENT IN THERMO-MODERNIZATION AND/OR BOILER UPGRADES, OR OF SUPPORT WITH ENERGY BILLS

Each of the five measures outlined above help support the profiling of the energy poor in Poland and for ascertaining which types of households are more likely to need additional support. However, from the perspective of the identification and targeting program support to households, all five measures do not all provide a clear line of sight.

The energy poor would struggle to pay their energy bills and may need financial support in doing so. The indicator most clearly linked to identification of households in need of support for energy bills is the low-income, high-cost measure. However, data limitations preclude direct identification of these households. From the perspective of paying heating bills, those with lower incomes and who have limited energy efficiency (for example, due to living in badly insulated houses) will struggle to pay their bills. This group is defined as the energy poor. However, the incentive effects of such a policy need to be considered, since it runs the risk of minimizing the incentive to improve energy efficiency, by penalizing those individuals whose houses are more energy efficient.

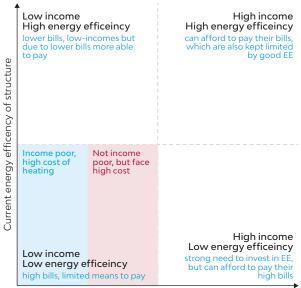
Investments that reduce fuel bills (linked to rising energy efficiency) are critical for reducing energy poverty. However, energy poverty is too narrow a concept for targeting stove replacement and thermo-modernization investments. These investments are unaffordable for low-income households, regardless of their current bills. The target group is more strongly linked to income and savings.

From the perspective of affording to invest in stove replacement and thermo-modernization, the group of low-income households who need support may be broader than the group of people who cannot afford their bills (the energy poor). Due to limited savings and the high costs of investments, this group is expected to be bigger than the group of energy poor.

### In summary:

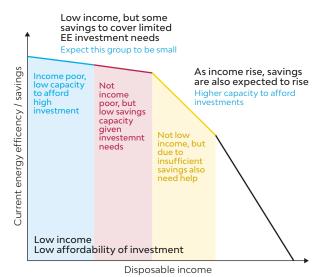
- I. Energy poverty analysis can be used to monitor the progress of the program to afford adequate thermal comfort. However, it is too narrow a concept for targeting investment support. Investment support can reduce energy poverty—but this group alone should not be used for eligibility criteria.
- 2. **For the low-income program:** it would be more appropriate to focus on income criteria (combined with asset criteria, subject to appropriate verification channels).

FIGURE A4.2 Comparison of disposable income and energy efficiency of structures shows that low-income and high-cost population require support with energy bills



Disposable income

FIGURE A4.3 Comparison of disposable income and current energy efficiency compared to savings suggests that using disposable income combined with asset criteria would be more appropriate for targeting the investment programs such as the low income program



### **NOTES**

- The analysis presented relies extensively on reports produced by IBS relating to energy poverty, supported by Structural Reform Support Services (SRSS). It also draws upon the draft interim report for the informal working group to support the shift towards low emissions of low-income populations.
- 2. Presentations by representatives from IBS on energy poverty were made on November 21st 2019 and December 19th 2019.
- 3. Trinomics, 2016; Eu Energy Poverty Observatory
- 4. In 2016 and 2017, this is a proxy indicator of the efficiency of the heating system that keeps the dwelling warm. In 2018, it should be noted that the survey measurement of this indicator changed to also incorporate whether a house could be kept sufficiently cold in the summer, potentially explaining the slight rise in the indicator in 2018.
- 5. European Energy Network (2019) "EnR Position Paper on Energy Poverty in the European Union"
- 6. Ibid

### **ANNEX 5**

# PROGRAMS AND POLICIES INDIRECTLY ADDRESSING ENERGY POVERTY THROUGH SUPPORTING INCOMES OR ENERGY RELATED SPENDING

This annex provides a summary of existing programs that support the thermal comfort of low-income households through supporting their heating bills. The assessment was informed by discussions in an informal working group on supporting the low-emissions transition for low-income households. The working group incorporated several members of selected ministries and organizations<sup>1</sup>. The working group devoted considerable time to assessing the policies and programs that exist to support the transition to low emissions among the energy poor population, as of early 2020.

While only one program in Poland formally includes the reduction of energy poverty as an objective, there are several programs that have overlapping objectives and which address aspects of energy poverty—although it is not their original objective. At present, energy poverty itself is formally an objective of only one program in Poland, the Stop Smog Program, discussed in detail in the main body of the text. Other social, housing, and energy policies address aspects of energy poverty. These are: (i) support to housing bills and housing policy more broadly, complemented by environmental policy in terms of the energy efficiency of buildings; (ii) energy policy, which covers the prices faced by households and the availability of various energy sources; (iii) social and family assistance programs provided by the Ministry of Family and Social Policy, to support income poor and socially deprived households to meet their basic needs, including housing and thermal comfort.

However, these programs are not targeted towards supporting the needs of household who fail to achieve thermal comfort, due to low income and the inefficient use of energy. Two of the most notable programs—the housing allowance and electricity allowance—fail to reach the majority of energy poor households living in single-family buildings due to the nature of the program design. An overview of programs that support housing and energy needs of low-income households is provided below. The discussion outlines why these programs do not currently adequately tackle the issues faced by low-income and energy poor households living in single family buildings.

### HOUSING ALLOWANCE

The objective of the program is to support housing expenses for low-income households occupying residential units with a small usable area. The objective of the program is potentially aligned to the low-income energy efficiency program and to the reduction of energy poverty, since the program considers expenses of the household for housing services and, technically included under eligible expenses, the expenditure of energy for heating purposes. However, the form of thermal heating included appears to vary by municipality, but is mostly focused on central heating and central hot water, rather than individual installations—implying that heating expenses are not broadly covered.

The housing allowance was introduced by the act of 21 June 2001 on housing allowances (*Ustawa z dnia czerwca 2001 r. o dodatkach mieszkaniowych*). Its purpose is to provide support for low-income households occupying residential units with a small usable area.

Households need to meet three criteria to be considered:

- (i) To have a legal title to live in the premises, including tenancy rights
- (ii) To have an income that falls under the income criterion per member
- (iii) To meet the area criteria

The *income criteria* is set at a higher level compared to other social programs, and is notably set at 175% of the minimum pension of single-person households, and 125% in the case of households with more than one member. Income is calculated based on revenue, less social insurance contributions paid. Social benefits received, based on the income criteria, are excluded.

The *area criteria* implies that support is given predominantly to those residing in multifamily buildings. Of the 3.2 million housing supplements paid in Poland in 2018, 1.3 million supplements in support was given to those in municipal housing, 0.85 million was given to those in cooperative housing (*spółdzielczych*), while private households (without housing associations—*prywatnych*, *bez wspólnot mieszkaniowych*) accounted for 0.36 million—just over 10% of housing allowances.

Due to the surface area restrictions, the housing allowance excludes the majority of single-family buildings, and therefore does not overlap with the population that needs to be covered under the low-income energy efficiency program.

The amount of the allowance depends on three factors:

- Income and number of people in the household,
- The cost of expenses for housing maintenance (of critical importance for the discussion around energy poverty),
- Rental rates in the municipal housing stock.

The maximum payment of the housing allowance is 70% of the expenses recognized by the housing allowance. Expenses for housing maintenance include², for example: rent, expenses related to operating costs, advances for the cost of managing common property, fees for thermal energy, water, and garbage collection. If the apartment is not equipped with central heating, central hot water, or a line gas installation, a lump sum (flat rate) can be received for buying fuel. However, this lump sum is calculated based on electricity prices and needs, rather than covering other sources of thermal energy (for example, biomass pellets) that could be used for heating. The housing allowance is granted for a period of up to six months.

# Gaps in the housing allowance from the perspective of supporting low-income populations and the energy poor

The population living in single-family buildings (SFBS) is more likely to be considered energy poor and is also in substantial need of support for upgrading heating sources. However, the housing allowance does not cover these households. Although housing allowances have the greatest conceptual overlap with the needs of low-income households struggling to afford energy bills, the program is currently predominantly limited to multifamily buildings, due to area restrictions for recipients. The eligibility criteria, most notably the area restriction on the size of the dwelling, imply that households living in SFBS are not eligible. Since an estimated 75% of energy poor households live in single-family buildings (IBS, 2018) this reduces the effective coverage of this population.

Thermal expenditures are not always counted towards housing expenses and are therefore included for consideration for inclusion in the housing subsidy. A review of municipal-level social assistance websites outlining the documentation needed for the housing subsidy showed some small differences in the way that the program is being implemented across municipalities. In some municipalities, the inclusion of heat energy expenditures is narrowly defined, while in others, it has the potential to be more broadly defined.

### **ENERGY ALLOWANCE**

The energy allowance, as per the Act of 10 April 1997 Energy Law, is stacked on the housing supplement, since those who have been granted a housing supplement may apply for a flat-rate energy allowance. It is conceptually linked to the low-income energy efficiency program, but unfortunately the area requirements mean that it does not cover many single-family buildings.

- I. Most energy poverty indicators point to the population living in single-family buildings, but the housing allowance does not cover these households: The eligibility conditions of the energy allowance for sensitive consumers, excludes the residents of detached housing and a large share of the poor. The energy allowance base could be extended so that the program is not tied to the housing allowance alone, but could also be linked to other programs (for example, family benefits).
- 2. Relatively low amounts of support extended. Furthermore, the amount paid is small compared to the energy spending for heating purposes. The allowance supports PLN 10-15 per month, compared to a median spending of PLN 135 per month by all households in Poland, and approximately PLN 80 per month among energy poor households.
- 3. Support for electricity bills rather than toward fuel for thermal comfort. Finally, the energy allowance covers part of electricity bills, rather than supporting heating costs, which has been found to be a primary characteristic of energy poverty in Poland.

### TARGETED BENEFITS (ZASIŁEK CELOWY)

This benefit provides support for necessary basic minimum needs in a short-term manner. It is not meant as a longer-term program that can support expenditures of groups in need. The support can cover part, or all, of the costs of purchasing food, medicine, and medical treatment, fuel, clothing, necessary items, minor renovations and repairs to apartments, and the cost of funerals.

The term for fuel that can be covered additionally requires updating, since it refers to solid fuels, while liquid and other forms of fuel should be considered for support.

## **NOTES**

- 1. The following Ministries and departments were regularly present at the informal low-income working group: (i) Ministry of Development; (ii) Ministry of Family and Social Policy; (iii) Ministry of State Assets; (iv) National Statistics Office. The following organizations were furthermore represented: (i) Institute of Environmental Economics; (ii) World Bank; (iii) Institute for Structural Research.
- An assessment of municipality instructions indicates that the directions about the expenses that can be included vary somewhat. For example, in Gdynia, Gdansk, and Wozniki bills for chimney sweep services are included in the expenses that can be included.

### **ANNEX 6**

# DETAILED FINANCIAL ASSESSMENT OF MUNICIPALITY COFINANCING

A background note<sup>1</sup> was produced (Swianiewicz, 2020) to assess the financial capacity of municipal governments to provide complementary financing for the SSP, taking into account their current financial situation, including the level of revenues and operating expenditures, as well as current level of debt to be served.

This annex provides a detailed summary of the background note.

### **METHODOLOGY OF ANALYSIS**

The estimations presented in the current report are based on financial reports of Polish municipalities until the end of 2019. The data used do not take into account: the impacts of the covid pandemic on revenues and expenditures; the slow-down of economic growth seen in early 2020, although signs of this slowdown were already visible in late 2019; or the potential consequences of Personal Income Tax (PIT) reforms for local government budgets. As such, these estimates should be treated as potentially optimistic.

Due to data limitations, several simplifying assumptions were used to estimate total investment needs (the demand for resources) and municipality resource availability (the supply of resources). The ssp requires municipalities to finance 30% cost of the implementation. It is also assumed that the subsidy for cities over 100,000 population would be lower, so large cities would be required to contribute more than 30% of the total cost. For the purpose of this analysis, we assume a total investment of 53,000 PLN per single family building of which the municipality finances 30%; it should be noted that these resources are not expected to cover the full estimated cost of boiler upgrade and a comprehensive thermo-modernization.

In addition, we consider a few alternative scenarios when assessing the capacity of municipal governments to finance their contribution to the programme. The basic scenario uses spending patterns from 2019 to benchmark the resources that municipal governments could devote to the ssp. The benchmark used reflects the recent importance of air and climate protection in the hierarchy of local investment policies. We have two variants of this basic scenario: in variant one, we assume that local governments contribute 5% of their Net Operating Surplus (Nos) to finance their contributions to ssp; this variant assumes that the contribution is a direct cash contribution (i.e. from existing municipality budget). The second variant assumes that municipalities allocate 5% of their credit capacity to borrow necessary funds on the borrowing market.

### **RESULTS**

Results are presented not only for the whole set of municipalities but also for more homogenous sub-groups: (i) size different types of municipalities (cities over 100,000 population, remaining cities of county status, suburban municipalities in the largest agglomerations, other big municipalities (over 20,000 population), other medium-size local governments (between 5,000 and 20,000 population), other small local governments (below 5,000 population)); (ii) municipalities clustered into 10 decile groups of "G-index" which (imperfectly) reflects the affluence of local government budgets.

Using only available municipality resources, a very limited share of municipalities would be able to participate in the ssp in a manner that would cover all the estimated low-income single-family building households in the municipality. Few municipalities can cover the contributions to cover

all low-income single-family building needs through their existing net operating surplus. The analysed data show that only 16 municipalities could afford to finance their full contribution in the first year of the program through 10% of their Net Operating Surplus (Nos). The situation improves only slightly if we take into account four-years long period of programme implementation. In the most realistic scenarios, allocating 5% or 10% of operating surplus to the SSP, the number of municipalities able to cover required contributions throughout four-years period grows only moderately to 39 or 108 respectively.

**FIGURE A6.1** Proportion of municipal governments with a full capacity to finance contribution to Stop Smog programme from Net Operating Surplus throughout four years period—index G decile groups

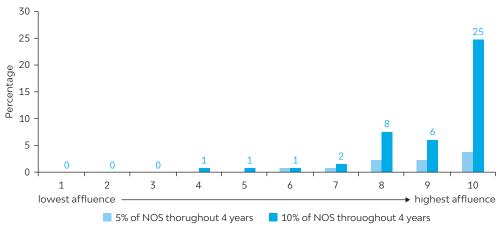
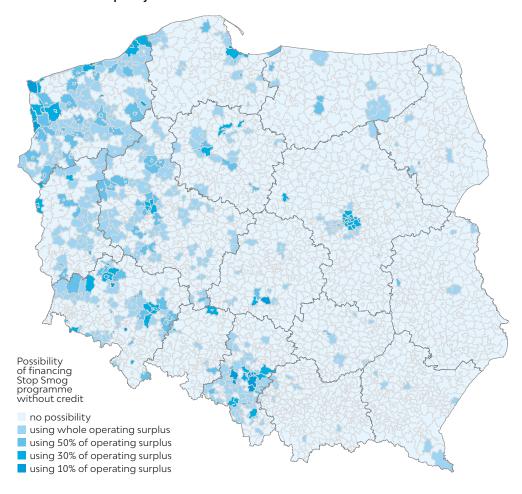


FIGURE A6.2 Capacity to finance contribution to SSP without credit



If we assume that municipalities are able to finance their contribution through borrowing, the results are more encouraging—even though the majority of municipalities would still not be able to cover the needs. If 5% of a municipality's credit capacity is used for the ssp, the proportion of local governments who may fully finance their necessary contribution already in the first year of the programme is just over 6%, and an additional one in ten municipalities could cover most the required demand. If we raise assumed financing to 10% of credit capacity, almost one fifth of local governments would be able to cover all their needs, and a further approximately 15% could cover more than 60% of their needs to cover the necessary contribution to the programme.

FIGURE A6.3 Credit capacity to finance municipality contribution to the SSP and decile groups of G index—scenario 1 (5% of credit capacity)

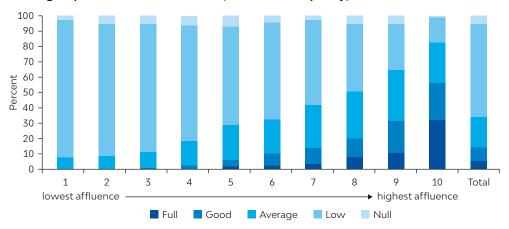
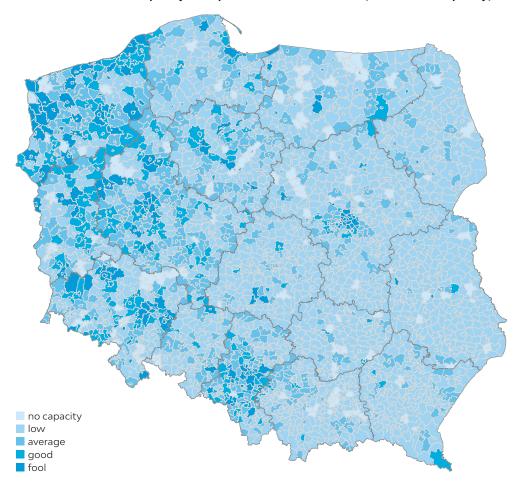


FIGURE A6.4 Credit capacity to implement SSP—scenario 1 (5% of credit capacity)



The results of our simulations clearly indicate that municipalities would need substantial support since they have a limited capacity to finance the magnitude of investment needed, unless they drastically increase the proportion of budget/credit that they are willing to spend on clean air investments. The data presented demonstrate that usually large municipalities have a higher capacity to finance their contribution to the programme than small local governments. The group with the lowest capacity consists of local governments with less than 5,000 population, while large cities are usually on the other extreme. But each of the groups is strongly internally diversified—there are also local governments with very high capacity among small local governments, as well as large cities with no or extremely low Nos of their budget. Therefore, it is not recommended to use population size as the main criterion to differentiate the required financial input of municipal governments.

# Historical municipality spending on air and climate budget can act as a benchmark for benchmarking additional ssp resources.

To assess how realistic the scenarios of using 30% or 10% of investment capacity to support the SSP, we look at historical expenditures of local governments. It is not possible to identify all related spending in budget reports but spending on section 90005 of budget classification (protection of air and climate) serves as a reasonable approximation.

In 2019 all local governments in Poland spent 1.35 billion PLN on this section. Almost all of this spending (over 97%) was by municipalities, and over 95% of it was in the form of capital expenditures. Total spending of municipalities on air and climate protection constituted less than 0.6% of their total revenues, and capital spending on this goal in 2019 constituted 3.1% of all capital expenditures.

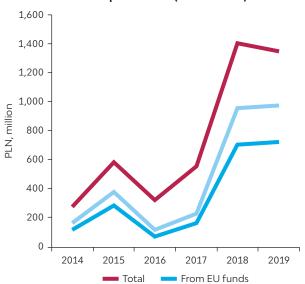
From the perspective of these data, it seems that:

- In terms of cash contribution spending about 0.5% of the total budget (which means about 10% of operating surplus—as in our scenario 2) is the most realistic.
- In terms of using total credit capacity to finance necessary investments, even our scenario 2—in which municipalities would devote 10% of their credit capacity to "Stop Smog" programme—is an extremely optimist assumption. In that case, our scenario 1 (5% of credit capacity) is much more realistic.

At the same time, spending on air protection—including from Regional Operating Programs—is among the fastest growing category of local government spending. Between 2014 and 2019 it has grown from 0.28 to 1.35 billion PLN (increasing almost 4 times during these 5 years). A very substantial part of this spending has originated from EU supported Operating Programmes—in 2014 such grants equalled 0.12 billion PLN (44% of the total spending in this section of budget classification) while in 2019 it was 0. 73 billion PLN (54% of the total spending). The share of spending on air protection in the total municipal capital spending has grown from 0.7% in 2014 to 3.1% in 2019. Taking that trend into account the assumption of 10% capacity devoted to SSP is still very optimistic, but 5% may be a more realistic benchmark for municipality contributions. Figure A6.5 provides an illustration of development of local government spending on 90005 section of budget classification between 2014 and 2019.

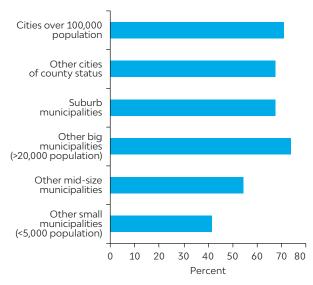
As the Figure A6.6 illustrates, small and medium size local governments were the least likely to devote budget resources to air and climate protection (chapter 90005 of budget classification) in 2019. The most affluent municipalities (deciles 9 and 10 of G-index) were the most likely to do so, while municipalities with middle range (close to median) G-index were the least likely to do so.

**FIGURE A6.5** Local government budget spending on air and climate protection (million PLN)

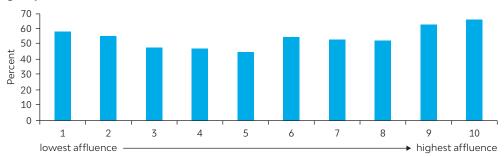


Including own matching funds

FIGURE A6.6 Proportion of municipalities that spent budget funds on air protection in 2019



**FIGURE A6.7** Proportion of municipalities that spent budget funds on air protection in 2019 by decile groups of G-index



### NOTE

1. Swianiewicz, Pawel (2020) "Assessment of Polish municipalities financial capacity for co-financing investments under the Stop Smog Programme" Background note for CuR4 final report.

### **ANNEX 7**

# ASSESSMENT OF SUBSIDY-LEVEL REVISIONS FROM A DISTRIBUTIONAL PERSPECTIVE

This section provides a brief overview of the distributional implications of the changes in subsidies from May 15, 2020.

### **METHODOLOGICAL CONSIDERATIONS**

### **Data used for distributional assessment**

We use two data sources in this exercise: the Household Budget Survey (HBS), and a specialized energy module conducted on a subsample from the HBS. Specifically, we use the 2018 Poland Household Budget Survey (HBS) by the Central Statistical Office of Poland (GUS). In contrast to the EU SILC, the HBS contains both income and expenditure data, along with demographic and household characteristics, thus enabling the identification of direct and indirect taxes and benefits across the distribution. Following standard practice, the collected survey is corrected for nonresponse through sample grossing-up weights. However, these weights take into account and correct only for the original data sample design probabilities and do not reflect the additional bias in survey participation, given the characteristics of participating households. For example, the survey overrepresents children in the survey and people who live abroad for more than 12 months, so that the age structure does not match that of the census. To match the age structure of the population along with critical characteristics of the tax and benefit system, we follow Myck and Najsztub (2015) to correct population weights in the HBS.

We complement the HBS with a specialized energy module, *Survey on Fuel and Energy Consumption in Households*. This survey covers approximately 11% of the households surveyed in the HBS (approximately 4,081 households) and has been conducted every three years since 2012. The energy module includes detailed information on energy consumption, the types of fuel used, types of heating appliances, their age, how often they are used, and whether they are treated by users as a primary, secondary, or tertiary heating appliance. Respondents are also asked whether their building is already partially or fully insulated. The sample coverage overlaps with the HBS for 2018, allowing us to bring in information on income and housing stock characteristics when assessing heating sources. An assessment of the alignment between the energy module and the HBS was conducted to determine whether the subsample from the energy module could be used to put forward national population statistics of heating sources. Applying the weights provided in the energy module, the size of the total stock of single-family buildings would be overestimated; however, when the weights from the Household Budget Survey were applied to the energy module, housing stock analysis aligned with those from the broader HBS. The team therefore applied the weights from the HBS to the energy module to determine the shares of the households under various scenarios.

### **Modelling approach**

The modelling approach used to identify households in need of stove upgrades or retrofitting, to allocate costs to these household for their upgrades and to subsequently assess affordability subsequent to receiving support from CAPP and tax relief is described in a background paper available upon request. The key estimated shares of households in need of upgrades are provided in the figure and table below.

FIGURE A7.1 Estimated retrofit and stove upgrade need, by income threshold

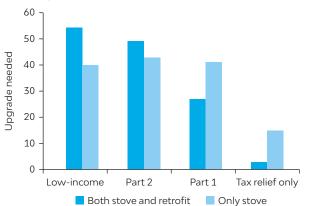
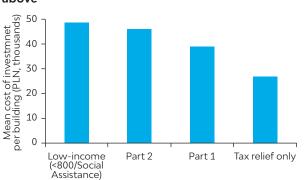


FIGURE A7.2 Estimated cost of upgrade by CAPP income threshold (for those who need upgrade), assuming cost structure described in the table above



**TABLE A7.1** Assumed cost of updating boiler or retrofitting

Equipment	Cost
Boiler – gas	15,000
Boiler – pellet	20,000
Boiler — heat-pump	30,000
Thermo-modernization only	51,750
Thermo-modernization and gas	66,750
Thermo-modernization and pellet	71,750
Thermo-modernization and heat pump	81,750

We show all the modelled programs in the Table A7.2, which combines the revised CAPP 2.0 program with the proposals on the low-income program. The proposed criteria for low-income program is discussed in greater depth in the body of the text.

**TABLE A7.2** Income criteria for the CAPP 2.0 program

		Yearly revenue	Maximum gra	nt from CAPP	_	
Monthly income per cap		of applicant or other criteria	Pellet boiler	Heat-pump	Tax relief (only for existing SFB)	
Low-income program	Recipients of selected social assistance programs and/ or up to 800 zloty (multiple person household); 1,120 zl (single person household)	Beneficiary of certain social assistance programs	47,000	47,000	Few low-income households can claim tax relief but tax relief approach same as other groups.	
CAPP Part Two beneficiaries	Up to 1,400 (multiple person household); 1960 (single person)	Below thirty times minimum wage if owner self-employed	32,000	32,000	Tax relief equivalent to a benefit of 17% or 19%, or 32% of costs (depending on the tax rate) For eligible costs up to PLN 53,000 not covered by the subsidy	
CAPP Part One beneficiaries	above 1,400/1,960	below 100,000	20,000	25,000		
Tax relief only	above 1,400/1,960	above 100,000	0	0		

The subsidy support given under CAPP 2.0 has increased compared to CAPP I.O, driven in large part by the higher support to Part I beneficiaries (middle-high- and high-income segments), while the proposed level of support for middle-low-sfb households remains broadly the same<sup>1</sup>. The wb estimates that the costs of the subsidy component of the program would rise significantly (under the simplified assumption that households switch to either gas or pellet boilers), while the estimated tax relief that would be withdrawn would decline.

The assessment of the revised CAPP thresholds was conducted from the perspective of:

- (i) Affordability: the extent to which households in the various groups can afford—using their savings (difference between income and consumption), and diverting nonvital consumption—to conduct the full investment.
- (ii) 'Free riding': if the subsidized household could have afforded to undertake the retrofit or stove upgrade, even in the absence of the subsidy.
- (iii) *Program budget:* and in particular, limited resources, where they have the greatest impact on enduring switching behavior, rather than displacing existing household funds.

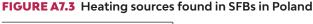
### **RESULTS**

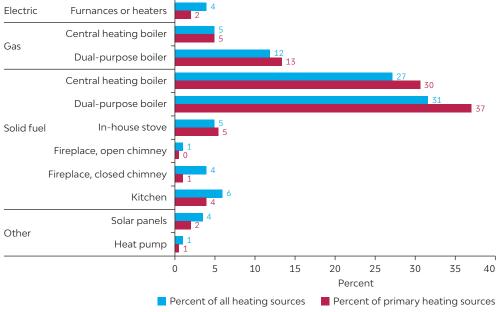
### **Descriptive analysis**

We start by describing the households covered by the CAPP.

### Household heating sources

We first describe the heating stock found in all single-family buildings in Poland using the 2018 Energy Survey collected by GUS; we use the information on current stock to identify the share of SFBS in Poland who would be in need of a stove upgrade. Figure A7.3 describes heating sources for all sources reported by at least one percent of households.





We estimate that 78% of SFBS in Poland need to upgrade their heating source: 71% certainly need to upgrade their boilers, and a further 6.5% likely need to do so. We assume that SFBS that certainly need to upgrade are those with a single solid fuel heating source (62%), those with multiple heating sources including solid fuel boilers (7%), and those who report no heating source (2%). Furthermore, 13% of SFBS have a nonsolid fuel second stove, but half of these household's report using solid fuel as their primary heat source—we add these latter households to the fraction who need to switch. Finally, there are 15% of buildings with only one heating source that is a nonsolid fuel stove. We assume that these SFBS definitely do not need to switch their stove type.

In 2018, 38% of SFBs were connected to a gas network. However, among them only 51% had any appliance that would allow them to use natural gas as a heating source. What is more, only 33% of SFBs connected to a gas network used gas as their sole heating source. On the other hand, 47% of SFBs connected to a gas network used a solid fuel stove as their primary heating source. This shows the significant potential to move 18% of SFBs from solid fuels to gas—and this potential may be even higher if there are households within the neighborhood of a gas network who are not connected.

### Distributional implication of CAPP 2.0

We start by modeling the CAPP and tax relief as outlined above. First, we simulate subsidies and tax relief, without considering affordability.

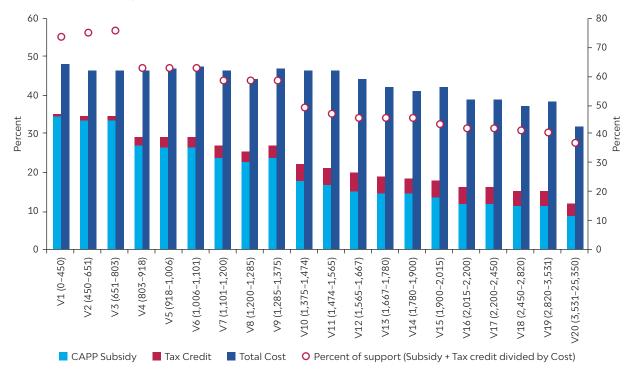
### Subsidy and tax relief received by households

We start by examining how the benefits received vary by vigintile of the income distribution. In this analysis, we do not take into account affordability but do place a restriction on uptake to the tax relief, notably that a household must pay sufficient PIT in order to claim their credit over a six-year period.

A few notable findings can be seen:

- I. CAPP subsidies are economically important for households in all income categories.
- 2. Tax relief take-up is high for better off groups but is lower for those groups at the bottom of the income distribution, due to having insufficient PIT payment to be able to claim on residual costs beyond those covered through the subsidy. This is despite these groups having a relatively limited claim, due to the high subsidies that they receive. It should be noted that since farmers cannot claim tax relief, this also slightly reduces those who can claim tax relief across the distribution.

FIGURE A7.4 Subsidy and tax relief received compared to cost



Note: Vigintiles are constructed using monthly income per capita as defined by CAPP. This figure is building weighted.

### FIGURE A7.5 Tax relief take-up



# Considering affordability and how this affects uptake — assuming loans can be taken

### Affordability

We examine affordability from two perspectives:

- I. **Free riding:** Whether households could afford to invest in retrofitting, even in the absence of the subsidies proposed—and look at how this varies by income level.
- 2. Coverage: Whether putting in place the subsidy can increase coverage, and by what amount.

As the subsidy level rises for a given income category, the program will increase the coverage of households, since more will be able to afford the program—but it will also increase the benefits that are given to those who could have afforded to invest in the absence of the support.

Since we do not have an ideal affordability measure in the Household Budget Survey, we use two separate measures and one combined approach. We consider the share of 'non-necessary expenditures' as capturing a concept that is potentially more appropriate for low-income households, and residual savings as the concept that captures the patterns of better-off households better. We use the combined measure, which takes the higher of two savings measures for each household, as capturing an optimistic scenario for affordability. Table A7.3 summarizes the results under the combined affordability measure.

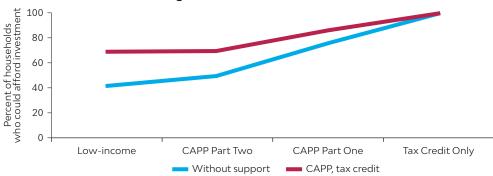
Two messages emerge from this analysis:

- I. Share of free riding increases with income, as would be expected. If no support is given, the take-up rate for those earning less than PLN I,400 (PLN I,960 if a single-person household) is limited. For those above this threshold, take-up under the no-subsidy scenario is more significant. The high fraction of free riding among even lower-income groups partly reflects those households who face considerably lower costs, due to only having to undertake stove replacements.
- 2. The impact of the subsidies on coverage increases are greatest for bottom income groups. Among the low-income households, the coverage increases by 28 percentage points. For the top income group, with yearly income above PLN 100,000, the affordability without any support is 100%, thus no increase in coverage is possible.

TABLE A7.3 Potential coverage of the program after considering whether a household could afford (over ten years) to cover the portion of costs not covered by subsidy or tax relief

	Combined measure					
Income threshold	Without support	CAPP, tax relief	% free riding	% coverage increase	P.p. coverage increase	Cost of coverage increase (PLN)
Low-income	42%	69%	60%	66%	28	70264
CAPP Part Two	49%	70%	71%	42%	20	66903
CAPP Part One	75%	86%	88%	14%	11	110952
Tax relief Only	100%	100%	100%	0%	0	_

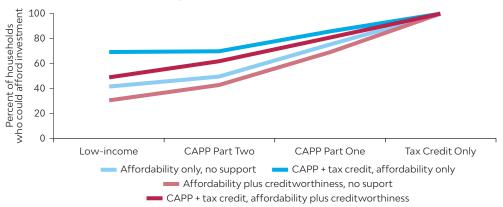
FIGURE A7.6 Potential coverage with and without subsidies and tax relief



### Creditworthiness and how this affects uptake—limited ability to take loans

If poorer households are more restricted in their access to loans, their ability to participate in the program diminishes substantially—to the extent that no energy poor households are potentially covered in the households for the bottom income group. This could be compensated by targeted savings products, which have the goal of supporting households to realize their home investment goals.

FIGURE A7.7 Potential coverage if loan established based on creditworthiness



# NOTE

1. The subsidy level has decreased from 67% to 60% for those reporting incomes between PLN 801 and 1,000, while it has increased from 55 to 60% for those reporting incomes between PLN 1,000 and 1,200 and from 43 to 60% for those between PLN 1,200 and 1,400.

### **ANNEX 8**

# DETAILED ANALYSIS INDICATING THE RATIONALE FOR SUGGESTED PROGRAM OVERLAP AND SUPPORT

### CASH BENEFITS FROM SOCIAL ASSISTANCE

Overview of program and the link to the need for support with heat source upgrade/thermo-modernization

A **permanent allowance** is payable to an adult single household who is completely incapable of work due to age or disability, if his income is lower than the income criterion of a single-household member, or an adult remaining in a family totally incapable of work due to age or disability, if his income as well as his income per person in the family, are lower than the income criterion per person in the family. In 2018, permanent allowance was paid to 200,786 families.

The **periodic allowance** is paid in particular because of long-term illness, disability, unemployment, or the inability to maintain or acquire entitlement to benefits from other social security systems. In 2018, periodic allowance was paid to 310,900 families.

In the case of social assistance benefits, the income is calculated based on the sum of the monthly income of the household received in the month before submitting an application for the benefit, net of taxes and social insurance contributions paid. In 2020, the income criteria are PLN 701, in the case of single-person households, or PLN 528, in the case of families.

### Population already identified in need, both from a financial and heat source perspective

- While the income is calculated on the monthly basis, the type of benefit indicates that the low-income situation in the family is permanent, therefore there is a very high probability of falling below the income threshold used in the low-income program.
- Furthermore, our analysis indicates that this population is in need of support to improve thermal comfort: one in three recipients of cash benefits from social assistance living in SFBS report being cold in winter, or having leaky or damp housing, and over 95% of recipients require heat source upgrades and thermal-modernization (WB analysis from Household Budget Survey 2017).

Given the high needs of this population, the engagement of social welfare workers with these clients could be used to inform those in single-family buildings about the program and to certify their eligibility. Social workers, apart from providing cash benefits, also conduct household interviews with their clients. Therefore, they know the situation of the household, also with respect to their housing status (that is, families living in single-family houses) and possibly the housing conditions (such as the type of heat source). Given the above, they can inform potential recipients about the ssp as a part of their activities.

# Suggested approach for supporting the energy poverty of households receiving cash benefits from social assistance

(i) *Provide information to clients about the low income program:* given the knowledge that social welfare workers have about whether the household lives in a SFB and which heat source is used, they are well placed to provide information about the program to potential recipients.

(ii) Provide certification that the household receives cash benefits, making them eligible for the low income program. Eligibility can be conferred through the provision of a certificate, in the same manner as Part 2 CAPP.

### **FAMILY BENEFITS**

# Overview of the program and the link to the need for support with heat source upgrade/thermo-modernization

Family benefits are paid to families with children under age 18 or age 25 (if a child continues education). The age limit does not apply to families with children with disabilities. The family benefit is granted for the 'benefit period', calculated from November of one calendar year to October of the next calendar year.

Family benefits are paid to families, whose **net income** per person in the family is below PLN 674 (or PLN 764, if at least one child has a disability). There is a list of income sources that are taken into account for the calculation of the benefit. In the case that the threshold is exceeded, benefits are still payable, according to the rule "zloty per zloty"—for each PLN above the income limit, the benefit is reduced by one PLN. The income verification is based on the annual income from the calendar year preceding the benefit period. In 2018, around 1.9 million families received family benefits.

### Population already identified in need, both from a financial and heat source perspective

- There is a full overlap between the income concepts; the population that falls under the family benefits income threshold also falls under the low-income threshold.
- Furthermore, our analysis indicates that this population is in need of support to improve thermal comfort: 17% of the recipients of family benefits living in single family buildings report being cold in winter or having leaky or damp housing, and over 90% of recipients require heat source upgrades and thermal-modernization (wb analysis from Household Budget Survey 2018).

### ALIMONY BENEFITS

# Overview of the program and the link to the need for support with heat source upgrade/thermo-modernization

These benefits are paid to people who have a right to alimonies pursuant to an enforcement order approved by a court, and their enforcement has proved ineffective. The alimony benefit is paid up to the age of 18 or until graduation from school or university, but not longer than until the age of 25; with no age limit if the entitled person has a disability. In 2018, 241,000 families received alimony benefits.

The income threshold for the alimony benefit was PLN 800 per person in the family (for the benefit period 2019/2020). The calculation of the income is based on the rules set out in the family benefits law.

### Population already identified in need, both from a financial and heat source perspective

- There is a full overlap between the income concepts; the population that falls under the family benefits income threshold also falls under the low-income threshold.
- Furthermore, our analysis indicates that this population is in need of support to improve thermal comfort: 26% of the recipients of family benefits living in SFBS report being cold in winter or having leaky or damp housing, and over 90% of the recipients require heat source upgrades and thermal-modernization (WB analysis from Household Budget Survey 2018).

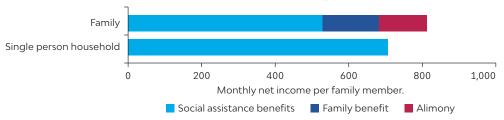
### Suggestion of information provision with annual verification of income criteria

• For those programs that have an annual verification of income criteria, information could be provided to the family about their potential of receiving the low-income during the annual verification of income criteria.

### Suggestion of data sharing provisions

• In addition, we would suggest that data sharing approaches be put in place to allow future beneficiaries of the three programs outlined above to have the option of sharing their contact information with the low-income program. This would allow the municipal-level officials charged with the low-income program to contact them and explain the support available.

FIGURE A8.1 Income criteria for the selected social programmes



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