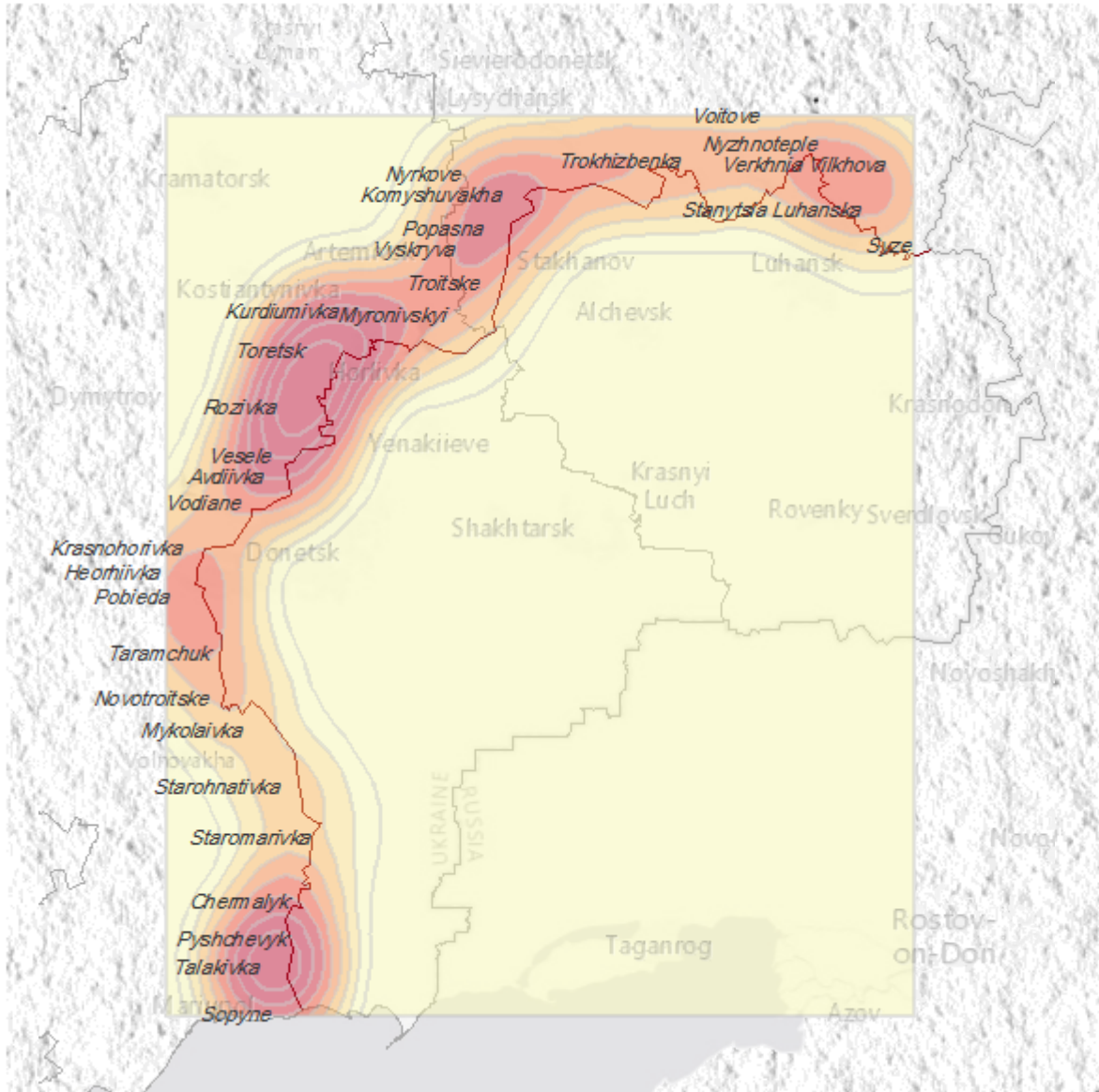
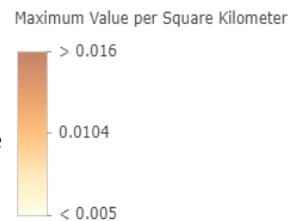




Winterization Recommendation 2017-2018



Communities along the contact line such as Avdiivka, Krasnohorivka, Kriakivka, Marinka, Novohnativka, Opytne, Verkhnia Vilkhova, Verkhnotoretske, Zaitseve, and Zolote have reported shortages of gas as a threat to their preparation of winterization, while key pockets of the contact line (highlighted in dark red) report difficulties with the delivery of fuel. The darker areas of the map had the most difficulties with quality and delivery of fuel in Winter 2016-2017. REACH ABA data collection- Shelter cluster projection at 90% confidence MoE 8.68



Winterization Context and Objectives

In the first half of 2017 alone, the conflict has already caused new damage to over roughly 700 homes on both sides of the contact line in addition to the backlog of damaged homes from 2016 and 2015. Coinciding with a time of displacement where 66% of IDPs are renting their accommodation¹, the average price of living is difficult during the winter season particularly for utilities. Moreover, returnees on both sides of the contact line are unable to adequately insulate their homes in advance of the winter.

In preparation for the winterization period 2017-2018, the Shelter/NFI Cluster will coordinate among Shelter/NFI actors to provide winterized assistance to people residing in conflict-affected communities per the following geographical priorities:

	Donetsk GCA	Donetsk NGCA	Luhansk GCA	Luhansk NGCA
First Priority	Heating	Heating	Heating	Personal Insulation
Second Priority	Personal Insulation for IDPs	Personal Insulation	Community Facilities and Infrastructure	Shelter insulation
Optional	<i>Shelter Insulation</i>	<i>Shelter Insulation</i>	<i>Personal insulation gap for IDPs</i>	<i>Community Facilities and Infrastructure</i>

Vulnerability	Location	Housing Factors
Persons with disabilities, elderly, chronic illness, single headed household, large families, IDPs, recent returnees Families at risk of further risk of displacement Unemployed	GCA vs. NGCA	Damaged vs. non-damaged
Very low or no income	Street connected to city gas vs. not connected (including formerly connected prior to conflict)	Number of individuals per rooms or metres squared
Price factors: average expenses for winterization items	Communities with market access vs. isolated communities	Type of heating: gas, central, non-gas
Access to services	Recent damages vs. no damages for more than 6 months or a year	Rental/Private/Multi-story/collective centre, hosted
	Urban vs. rural	

¹ IOM NMS http://www.iom.org.ua/sites/default/files/nms_report_march_2017_eng_new_0.pdf

Heating

A. NGCA

Heating Source

Donetsk NGCA is the primary oblast in need of heating. Private households in villages that were formerly connected to natural gas prior to the start of the conflict are the households that are most vulnerable during the winter months (suburban areas: Donetsk, Horlivka, Makiivka, Yasyunavata, into the southern and eastern half of Donetsk NGCA). Such households would require support with coal and stoves. The procurement and delivery challenges that exist in Donetsk GCA are not so acute in Donetsk NGCA. Geographically, villages that are less accessible during the winter months may need more blanket coverage than those that are easier to access. In larger cities with easy access, depending on specific vulnerability criteria of beneficiaries, humanitarian coverage could be at least 30-50% of the original need as identified by partners.

What	Standard amount of coal for 1 full winter season	Minimum recommended amount of coal
Amount	3 tons	2 tons
Price	\$113 USD	\$76 USD

Type of heating

Contingency stock for electric heaters is also a need. In case of failure of solid fuel or gas in NGCA, electric heaters would be the best response, because in the context of Ukraine the electricity system has tended to be more resilient and the first system to be repaired. Nevertheless, due to limited capacity of the electrical grid, this is only a contingency measure and should not be part of regular programming.

Utilities

The price of gas in NGCA is represented in the table below. The relative cheap prices in NGCA compared to GCA is a pull factor or a cause for **involuntary displacement** for those facing the burden of the rising cost of utilities in GCA. A de facto program in Donetsk NGCA exists to ease the burden of utility costs for those who have damaged homes (see below).

Oblast NGCA	Average price of natural gas less than 6000m3 (Currency: RUB)	Average price of natural gas less than 6000m3 (Currency: UAH for comparison)	Average price of natural gas greater than 6000 m3 (Currency: RUB)	Average price of natural gas greater than 6000 m3 (Currency: UAH for comparison)	Price of Heating In NGCA in RUB	Heating NGCA in UAH
Donetsk NGCA	447,5 RUB/Gcal	192 UAH/Gcal	911.25 RUB/Gcal	192/Gcal	16 RUB/m2	6.83 UAH/m2
Luhansk NGCA	911.25 RUB/Gcal	389 UAH/Gcal	510 RUB/Gcal	217.7 UAH/Gcal	9.42 RUB/m2	4.02 UAH/m2

B. GCA

Heating Source

Due to poor quality, rising prices, and challenges with procurement experienced during the implementation of Winterization 2016-2017, several options are recommended depending on need, access, and vulnerability category of beneficiaries.

What	Standard amount of coal for 1 full winter season	Minimum recommended amount of coal	Standard amount of firewood for 1 household for full winter season	Minimum recommended for 1 household for winter season	Mixed modality approach
Amount	3 tons	2 tons	10m ³	5.5m ³	Start-up in kind and remainder in cash ²
Price	\$300 USD	\$200 USD	\$300 USD	\$200 USD	Start-up in kind and \$100

Affordability of Utilities

Monetized assistance can be provided to families to support beneficiaries with the expense of paying for utilities during one season. A condition for such assistance is that the beneficiary is not already receiving such assistance from the Department of Social Protection's housing and utilities subsidies. It is recommended that in addition to distribution of cash, that agencies undertake regular protection and shelter monitoring according to the indicators found in the Shelter Cluster's [guidelines on monetization](#). Further assistance should be provided consistent with both social assistance and local rates of energy. According to Ukrainian legislation, thermal energy is priced through several indicators: cost of fuel (natural gas or coal), cost of electricity, cost of wages with benefits, amortization, and cost of repair for fixing any assets.³ Agencies should align their monetary support with both the existing housing and utility subsidy and the current prices of utilities in place. Some publicly available information on the State Statistics are listed in the tables below.

Oblast GCA	Average price of natural gas ⁴	Average price of electricity ⁵	Average wage ⁶	Average Subsidy Given for gas heating per household ⁷
Donetsk GCA	855.34 UAH/Gcal	1000 UAH	7077 UAH (Jan-May 2017)	2859 UAH
Luhansk GCA	1076.02 UAH/Gcal	480 UAH	5433 UAH (Jan-May 2017)	3439 UAH

Distribution of Stoves

Experience has shown that the distribution of *bruzhika* stoves with the top-up of heating source can be a way to provide heating to these households in the aftermath of damage to civilian infrastructure. In winter 2016-2017, local authorities also became involved in the distribution of stoves in Donetsk Oblast, so involvement of local authorities in distributions would facilitate transition back from humanitarian to local actors.

² Agency should first perform market assessment to ensure that adequate materials are available in local markets- Conditionality or unconditionally can be applied depending on how often the agency is able to administer tranches prior to the start of the winter and monitor the house's adequacy of heating

³ <http://www.nerc.gov.ua/?id=19490>

⁴ <http://www.nerc.gov.ua/?id=18947>

⁵ <http://www.nerc.gov.ua/?id=18947>

⁶ https://ukrstat.org/en/operativ/operativ2016/gdn/reg_zp_p/reg_zpp16_e.htm

⁷ <http://www.nerc.gov.ua/?id=18947>

Need for beneficiary awareness about Carbon Monoxide Poisoning

Carbon

Monoxide is a gas produced whenever a material is burnt.⁸ During the winter months, it is important that beneficiaries recognize the risk that they and their households could become exposed to the risk of carbon monoxide poisoning. Houses with functioning chimneys are better able to mitigate against this risk, while those that do not have chimneys should be encouraged to regulate ventilate their homes (opening windows and other openings to allow in fresh air. The risks of carbon monoxide poisoning are high without regular ventilation, because the gas is odorless and non-visible. Symptoms are similar to the flu. Beneficiaries should also have proper information about the physical symptoms of carbon monoxide poisoning including headaches, weakness, dizziness, nausea or vomiting, shortness of breath, blurred vision, or loss of consciousness.⁹

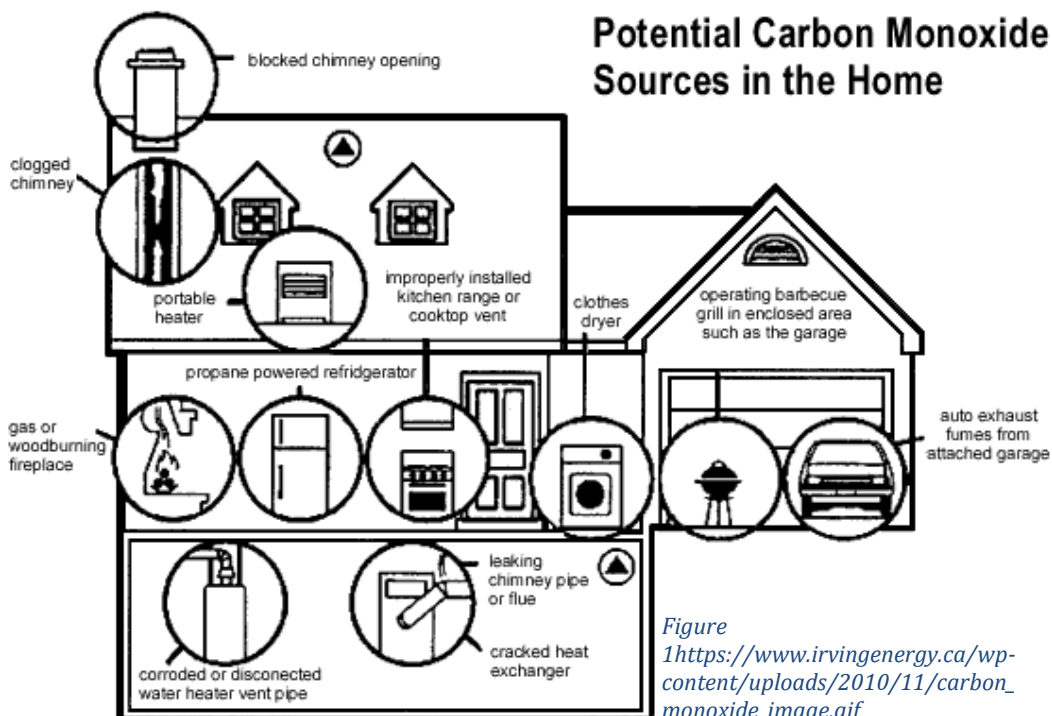


Figure 1 https://www.irvingenergy.ca/wp-content/uploads/2010/11/carbon_monoxide_image.gif

Personal Insulation

Indicative GCA and NGCA Prices and Quantity Core NFI, PER PERSON ¹⁰			
#	Item	Qty	Cost
<i>Clothing</i>			
1	Winter jacket	1	75 USD
2	'Valienke' felt boots	1	13 USD
3	Thick socks	2	3 USD
4	Woolen Hat	1	5 USD
5	Woolen scarf	1	5 USD
6	Thermal underwear	1	25 USD

⁸http://www.emedicinehealth.com/carbon_monoxide_poisoning/article_em.htm#carbon_monoxide_poisoning_causes

⁹ <http://www.mayoclinic.org/diseases-conditions/carbon-monoxide/basics/symptoms/con-20025444>

¹⁰ Indicative prices, estimating for bulk procurements, inclusive of VAT

A. NGCA

Personal Insulation is one of the primary needs in NGCA, as people struggle to afford the regular price of basic goods. Humanitarian actors working to meet the needs last year estimated that they were only able to cover about 20-33% of this need. Beneficiaries particularly lack access to adequate winter clothing. Due to the access to functioning markets particularly in Luhansk NGCA and in a lesser sense Donetsk NGCA, winterization distributions can include at least one double-layered coat, thermal underwear, scarf, a winter hat, and socks. Cash modalities remain limited due to the political and banking restrictions in NGCA.

B. GCA for IDPs

According to latest assessment data, IDPs still struggle to afford basic items. Last year, the programs that had the most resonance for IDPs' winterized needs were cash for winterization programs that enabled families to purchase the winter items that they need. Such interventions should be informed by market monitoring to see if quality items are available. Most beneficiaries are purchasing goods at the local markets. Target populations are families with children where size of clothing may have not lasted the three years of the conflict. Post distribution monitoring is highly encouraged to ensure that the beneficiaries were able to meet their needs for winterized goods.

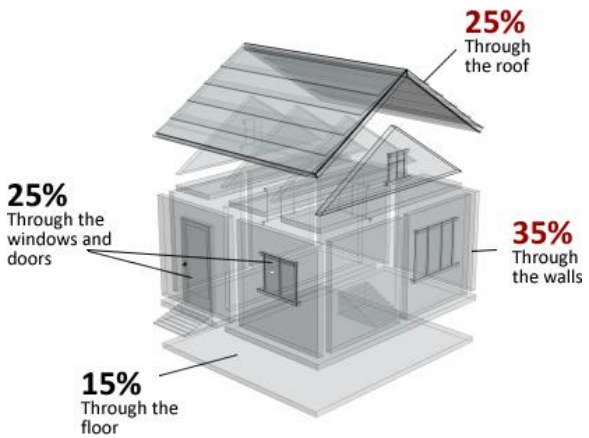
Community Facilities and Infrastructure

Community facilities and infrastructure projects aim to assist facilities, which are providing community services and thus a central point of heating in the community. Many of the root causes of the increased vulnerabilities during the winter may be due to failures in gas and electricity pipelines and old and decaying multistory buildings. Several examples of activities in the area of community facilities and infrastructure include:

1. Support to vulnerable IDPs residing in Collective Centres
2. Support to schools, hospitals, and communal areas where small communities may depend on one heating source for their entire community.
3. Provision of supporting materials to private or state companies who are able to conduct larger infrastructure projects.

Shelter Insulation

Shelter insulation provides a critical way for making homes more **energy efficient**. As gas systems have failed due to escalating prices and the ongoing conflict, shelter insulation activities represent the best **long-term solution** in both GCA and NGCA for proper winterized homes and for **reducing the cost of utilities over time**. To a lesser extent, agencies can also assist IDPs in mitigating the high cost of utilities by assisting such households with the purchase and installation of insulation. After three years of conflict, the Shelter Cluster is encouraging families that have more than one household member to have insulation in **more than just one room** in order to correspond with adequacy of heating in a prolonged conflict situation. The following diagram explains the options for insulation:

Diagram	Element	Heat loss	Recommendation
 <p>Diagram only for individual house. Heat loss could significantly change according to design premises (multi-storey etc.)</p>	Windows & opening [priority]	25-35% ¹¹	Primary point of heat loss: Even if undamaged, double glazed windows of poorly heated premises could be upgraded by adding an extra layer(s) of transparent plastic sheeting, insulation foam or tape
	Doors and windows: Presence of Draft [priority]	15-25%	If existing draft, glass or rock wool panels on ceiling.
	Roof optional []	25-35%	If ground floor or without wooden/linoleum cladding, matt or carpet like material could improve.
	Floor [optional]	10-20%	
	Wall (external)	10-20%	Usually too expensive for humanitarian intervention, but could be considered part of recovery

Glazing			
#	Item	Quantity	Price est.
1	Windows complete	2 m ² to 4 m ² according to house and family composition	70 USD/m ² Up to 277 USD for large house/family
<i>or</i>	<i>Individual house with double glazing replacement and insulation all around opening perimeters</i>	<i>Up to 7 or 8 windows per individual house</i>	<i>Around 37 USD/ m² Up to 278 USD/house</i>
2	Glazing only -6mm preferably-	80 m ²	6.9 USD/ m ²
3	Insulation tape (by linear metre, LM)	20 LM according to # and size of opening	2 UAH/LM 2 USD/room
4	Insulation foam	0.5 can / window	74 UAH/can 1.6 USD/room

Roofing insulation, example			
#	Item	Quantity	Price est.
1	Glass wool roll 100mm 6 m ² each	80 m ²	185 USD/house
2	Vapour barrier	80 m ²	38 USD/house

¹¹ Heat loss estimation where windows are undamaged

Winterization Recovery and Livelihoods

In Government Controlled areas, there is a need to place an emphasis on recovery and preparedness of the local population. The Shelter Cluster has collaborated with the Ukraine Food Security and Livelihoods Cluster to brainstorm activities, which may facilitate recovery and stimulate the creation of new livelihoods for those impacted by the conflict.¹²

1. Biofuel production press

In Government Controlled Areas of Ukraine, the quality and delivery of coal has become problematic due to the dynamics of the conflict. Any form of biomass could be used as a substitute to coal as a heating source. Agencies have brainstormed using coal dust, sawdust, buckwheat, peat, wood, crop residue (corn/rice husks for example), animal waste, grass, and brush as alternative heating sources.¹³ Prior to use as a source of fuel for the winter, processing of the materials is required in several forms depending on the type of substance used for heating.¹⁴ Beneficiaries may use available woodcutters or hand presses as physical production tools to reduce the size of materials gathered for the production of the wood briquettes. Once the items are prepared and cut, briquettes can be banded together using cellulose from wood-like materials, manure, and/or clay. It is anticipated that the cost of a shredder and biomass briquette hand press would cost less than 4000 UAH (roughly \$153 USD). In some rural and farming communities, some materials may already be available.

Biomass briquettes require twice as many tons of as regular wood or coal for one winter season (6 tons as compared to 3 tons as discovered by NRC Ukraine’s pilot from 2016). The difference in energy produced depends on the type of biomass that beneficiaries will select. Due to the time and physical labour that this work entails, these activities should be programmed to run during **the summer months** in order to ensure that beneficiaries have enough briquettes to start the winter. Regular monitoring of the households piloting such interventions is required during the project, because if materials are not properly compressed, the fuel source **could burn at a faster rate** than traditional coal or wood sources, which may leave beneficiaries unable to make it through a full winter using this source. The opportunity for this type of activity to be further developed in the Donbass is rich, as Ukraine is already an exporter of such biomass pellets to countries such as Poland, the Czech Republic, and other countries in the EU.¹⁵ Agencies who are already piloting this intervention have shared that they established relations with the local Forestry Department to agree that they would complement such interventions by replanting trees. In addition to promoting recovery of the local population, the activity will also promote the environmental rejuvenation of forests that were depleted due to conflict activity.

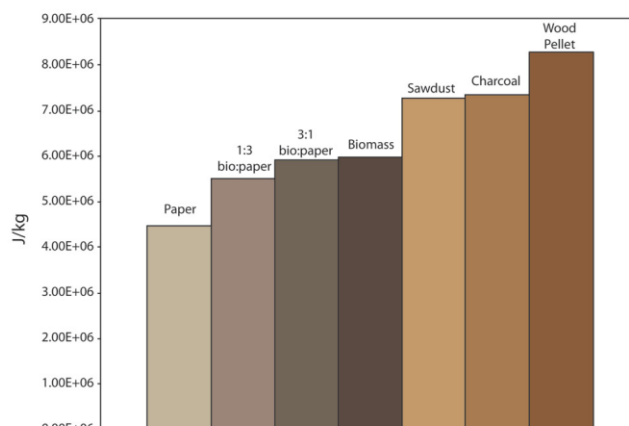


Figure 3 <http://biomassmagazine.com/articles/5148/biomass-briquettes-turning-waste-into-energy>



Figure 4- Hand press from NRC pilot project

¹² <http://fscluster.org/ukraine>

¹³ <http://www.developmentbookshelf.com/doi/pdf/10.3362/9781780447698.011>

¹⁴ <http://www.developmentbookshelf.com/doi/pdf/10.3362/9781780445762.009>

¹⁵ <http://biomassmagazine.com/articles/14090/eastern-europe-exporters>

2. Support to small businesses with production of winter items (especially GCA contact line)

Construction and clothing companies are main source of winterization goods within areas of the former contact line. Livelihood activities could be targeted at these beneficiaries to be sustainable providers of personal winterization items as a source of their livelihoods. A social business activity could also be created where existing markets are encouraged to provide winter items to conflict-affected families at a lower price for several months. In the past, agencies in Ukraine have implemented voucher programs in GCA to stimulate these businesses while providing making these goods available to the conflict-affected.

3. Support of construction businesses in production of alternative forms of insulation and beneficiary access to purchase of the same.

Due to the underuse of insulation and the conflict's negative impact on reliance on gas heating, agencies can consider supporting beneficiaries with the purchase and then subsequent installation of insulation of their households. As a job creation strategy, beneficiaries can be trained in the production of shelter insulation materials from available raw materials including straw bale or processed wheat and rice straw.¹⁶ One of the cheapest eco-friendly construction techniques, straw bale is using the thermic insulation property of a medium thick wall to increase the energy efficiencies of the house which can be shaped into a modern design. The technology is functioning on the principle of walls made from large straw bales bonded together by planks every two layers and/or tied with a metallic cable. Usually straw bales for construction are prepared using the same machine but are more compacted and drier than the agricultural one.¹⁷ A similar project of straw-bale product was piloted in Ukraine in [2016 in Khmelnytsky, Ukraine](#). By using a hydraulic press, the process of production requires two or three people to produce four to eight panels in one shift as the machine works at 3kW/h. The average dimensions of a straw-bale insulation panel is 1250*3000*400 weighing roughly 200 kg and panels will have a density of 100-130 kg/m³. To generate demand for such businesses, a secondary element of the program could use vouchers and technical assistance to help beneficiaries with the installation of such ecological fundaments as insulation.¹⁸

¹⁶ <https://www.treehugger.com/green-architecture/greenbuild-agriboard-structural-insulated-panels.html>

¹⁷ <http://home.howstuffworks.com/home-improvement/construction/green/straw-bale-house.htm>

¹⁸ <http://eco-bud.com/cena-2>

Government Support Programs

NGCA

In July 2017, authorities in DPR declared that damaged houses or apartments could receive an exemption from utilities. A special commission has been established to determine whether a suspension case should be accepted or rejected and what the appropriate exemption calculation on utilities should be. According to this legislation, damage caused by the current crisis is qualified as deformation to the building, damage to the building's insulation and heating system, and damage to the load-bearing principle of the building. Households who have already repaired existing damages are ineligible. Owners or tenants must apply for such exemption to the local authorities with necessary supporting documents (official inspection reports, photos, declaration of unsuitability of living). Within 10 days, the commission will inspect the damaged house or building and then in 30 days delivers its decision. Such a suspension can last no longer than 1 year, and the owner and tenant will have to reapply if they would like a second round of exemption.¹⁹

GCA

According to the latest available data, 57% of IDPs as compared to 78% of local residents received state support with the expense of utilities during the last two years of the conflict.²⁰ The Housing and Utility Subsidy assists vulnerable households with heating and utility expenses for natural and liquid gas, and various forms of utilities: water, electricity, hot water, etc. Since Ukraine began to undertake changes consistent with their International Monetary Fund reform package, the average household has noticed that the expense of their utility and heating costs has steeply risen, as the government no longer directly subsidizes the companies, which provide such services. In order to make these subsidies more targeted to the most in need and efficient for the overall Ukrainian economy, the Ukrainian government has begun to introduce some new provisions in the legislation:

1. **Households are not eligible if they already have debts for housing and communal services.**
2. The time-period of the subsidy is now adjusted to the **end of the heating season**, and applications outside of the heating season will not be considered.
3. Local governments now have their own jurisdiction to grant additional subsidies depending on whether they have local budgets.
4. Conflict affected populations will face additional restrictions to receiving the subsidy. Due to recent amendments to Resolution 505, it is increasingly more difficult for IDPs who own property in Government Controlled Areas to receive a housing and utility subsidy with a few minor exceptions including whether the private property is found in one of the communities along the contact line where authorities are not able to exercise their normal jurisdiction. Those who had their homes damaged must present a certification of damages, which testifies to the technical state of their housing conditions.²¹

Due to decreased humanitarian financing, it will be essential for the authorities in government-controlled areas to ease the burden of conflict-affected individuals for the expense of these materials to smooth their recovery. Shelter Cluster actors should work closely with Protection Cluster partners to publicize information about subsidies and refer families for legal assistance about how to access subsidies.

¹⁹ HLP TWIG OHCR briefing note

²⁰ World Bank: <http://documents.worldbank.org/curated/en/571011497962214803/pdf/116489-WP-PUBLIC-138p-GSUGL-UkraineSurveyResearchWithAnnexes.pdf>

²¹ DRC Legal Alert June 2017

Annex 1: Needs Overview

In Donetsk Oblast GCA, the price of utilities rose 45% since the beginning of the conflict²², while in Luhansk Oblast GCA, the price of utilities has by 36% since the beginning of the conflict.²³ After three years of conflict, a number of beneficiaries have started to return to communities impacted by damage to housing and residential infrastructure meaning that they are inadequately prepared for the oncoming winter. This year’s winterization guidelines will focus on the needs of the conflict affected non-displaced, internally displaced, and returnee populations.²⁴

IDPs and Returnees	Conflict-Affected Non Displaced
<ul style="list-style-type: none"> • 2800 elderly and their households IDPs in Donetsk and Luhansk GCA are in need of heating • 8000 IDP households report lack of satisfaction with insulation in Donetsk and Luhansk GCA • 7400 IDPs and their households who recently returned to NGCA have unsatisfactory heating insulation • 33,000 IDPs and their households in Donetsk GCA cite payment for utilities as problematic • 13,000 IDPs and their households in Luhansk GCA cite payment for utilities as problematic • 12,800 IDPs and their households in Donetsk GCA and 5000 IDPs and their households in Luhansk GCA can’t afford basic goods and are applying negative coping mechanisms <p>(Source: Based on processing data on an IDP population projection and an extract of the data produced from the recent IOM NMS Survey²⁵)</p>	<ul style="list-style-type: none"> • Over 700 households newly damaged since the start of the year • In the last six (6) months, thirty-eight (38) communities incurred between one to ten newly damaged homes, six (6) communities incurred thirteen to thirty newly damaged homes, and five (5) communities experienced 30 to over 100 newly damaged homes. • 17,350 households in Donetsk and Luhansk GCA which were formerly connected to gas do not have access to running gas according to REACH ABA key informants. • Between 23,464-30,270 households in need of fueling source on both sides of the contact line <p>(Source: Based on processing the data from REACH’s Area Based Assessment and information collected by the Shelter Cluster on damages)</p>

²² State Statistics Donetsk Oblast

²³ State Statistics Luhansk Oblast

²⁴ Please see annex 1 for precise geographical targeting and analysis of needs.

²⁵ http://www.iom.org.ua/sites/default/files/nms_report_march_2017_eng_new_0.pdf

Additional Information on Utilities in Government Controlled Areas

Electricity Prices from Autumn 2016 to Early 2017

The National Regularity Commission on Energy and Utilities in Ukraine regularly publishes updates on prices and consumption of energy and utilities on their website. Here is the latest information with category of population for electricity: <http://www.nerc.gov.ua/?id=15013> The website also has English and Ukrainian details on the legislation concerning the measurement and regulations on electricity, natural gas, heating, water, and waste: <http://www.nerc.gov.ua/>

Consumers	Price of electricity in centile of UAH per 1 kWh including VAT
1.1. Population (including living in homes equipped with kitchen electric cookers) (including rural areas):	
For the volume consumed 100 kW · h of electricity per month (inclusive)	90
the amount consumed more than 100 kW · h of electricity per month	168
1.2. The people living in apartment buildings (including homes hotel-type apartments and dormitories), equipped with the established electrical systems	
1.2.1. In the period from 01 May to 30 September (inclusive) pursuant to paragraph 1.1	
1.2.2. In the period from October 1 to April 30 (inclusive):	
the amount consumed up to 3000 kW · h of electricity per month (inclusive)	90
For the volume consumed over 3000 kW · h of electricity per month	168
1.3. The people who live in apartment buildings not connected to gas or which are missing or not functioning district heating system (including rural areas):	
1.3.1. In the period from 01 May to 30 September (inclusive) pursuant to paragraph 1.1	
1.3.2. In the period from October 1 to April 30 (inclusive):	
the amount consumed up to 3000 kW · h of electricity per month (inclusive)	90
For the volume consumed over 3000 kW · h of electricity per month	168
1.4. For large families foster families and family-type homes, regardless of consumption of electricity	90
1.5. The population, which is calculated from the power supply organization with a total accounting devices and unified by a legal entity, housing maintenance organizations, in addition to hostels	168
1.6. Hostel (which fall under the definition of "population, which is calculated from the power supply organization with a total accounting devices")	90

Post Distribution Monitoring Indicators

- Accommodation type (rented apartment, rented room, rented house, private owned household, hosting situation, collective centre, hotel, dormitory, other)
- Number of people per household
- Square meters or number of rooms as proxy if not available
- Heating type (Communal, electrical heater, coal stove, briquette/pellet, wood stove²⁶)
- Damage or Non-Damaged accommodation – If Damaged (which category of damages²⁷)
- Inspection of accommodation to check for adequate insulation: (no leaking roof & windows, cracks in the walls or floor, there are windows, doors and flooring)
- Rating of heating source as good or poor
- Number of months that the heating source lasts
- Sources of income and average income
- Average cost of rent per month from October-April
- Average cost of heating per month from October-April
 - Pre and post installation of insulation
- Average cost of utilities per month from October-April
 - Pre and post installation of insulation
- Average cost of water per month from October-April
- Availability of hot water
- Status: IDP, Non Displaced, Host Community
- Other vulnerability category: E.g. persons with disabilities, elderly persons, persons with chronic illnesses, large families, etc.

²⁶ Wood stoves may be used in only very rare and particular cases due to the high-level risks of fire. Certain categories of vulnerabilities are not as easily able to operate these stoves. In case of traditional individual solid fuel stove, increasing the thermic inertia with burn brick masonry could be considered

²⁷ Refer to the Shelter Cluster's Note on Scale of Emergency for a summary of the categories of damages

Summary of Key Recommendations

1. Due to the high volume of needs, winterization stakeholders should try to maximize opportunities to provide assistance in **NGCA**. In GCA, winterization stakeholders should explore mechanisms to stimulate winterization recovery ensuring that local actors are able to provide winterization assistance.
2. **Heating** is the priority need for both sides of the contact line. While coal remains the key source of heating distribution in NGCA, alternative forms of fuel will have to be further explored in GCA due to the significant difficulties related with the humanitarian blockade.
3. Shelter insulation is a key way to make homes more resilient **during the winter, increase overall energy efficiency, and reduce the cost of utilities.**
4. For GCA, monetized forms of assistance for winter needs should be prioritized according to the beneficiaries' **proximity to functioning markets, availability of the needed winter items, and vulnerability criteria.**
5. At minimum, a **post distribution monitoring** is required to ensure that the winter needs are being met, but if possible regular **monitoring** during the project can provide value added and social support to isolated beneficiaries while ensuring that the beneficiary has the required technical assistance.
6. New legislation on subsidies for GCA, may impose additional **complications for conflict-affected populations** to receive subsidies. **Referrals to Protection Cluster partners for legal assistance** and advocacy support may be required. Shelter Cluster partners can play a key role in informing conflict affected people about the housing and utility subsidy, while ensuring that monetized assistance does not do any further harm to the social-safety net. A new de facto program was introduced in Donetsk NGCA to relieve damaged homes from the cost burden of utilities, but as of the publication of this guidelines, there is no available information on whether De Facto authorities will provide coal assistance for the upcoming year.
7. Winter will continue to be a factor in Eastern Ukraine even after the conflict ends. Partners are encouraged to liaise with both Shelter and NFI Clusters and Food Security and Livelihoods Clusters to implement the activities mentioned in these guidelines or in the FSL Cluster's Guidelines to stimulate **income generation, provide adequate heating, and solve the spike in food insecurity during the winter months.**
8. Community facilities and infrastructure projects can be done in partnership with local authorities to **stimulate community recovery** and provide comprehensive coverage of a winterization need.