

## 1. General conditions for the modernization of dwellings in the territory of the former GDR

Following reunification, the GDR joined the legal and economic system of the Federal Republic of Germany. Reunified Germany assumed the liabilities of the GDR government and looked for appropriate ways to transform the planned economy into a market economy. In July 1990, the GDR municipal housing administrations (KWV: kommunale Wohnungsverwaltungen) were converted into municipal housing companies and the stock of "nationally owned" ("volkseigen") housing that the former KWVs had administered was transferred to those companies.

At the time, there were essentially three different types of housing owners:

- the new private owners of residential buildings and those owners from former times that still remained, specifically, owner-occupied single-family dwellings or multi-family buildings;
- the old housing construction cooperatives and those founded after 1948;
- the local housing companies created from the KWVs in 1990

(there were also still some old housing construction sponsors from pre-1945 times, e.g. the churches).

Thus, the privatization of the state housing stock during the transition to the market-economy system took a different form in the former GDR than it did in many of COMECON countries, i.e. privatization was carried out by creating efficient housing companies rather than through the massive-scale transfer of ownership to tenants. One should add that in many formerly socialist countries this privatization was carried out in only an incomplete fashion: in most cases the ownership of the land associated with residential buildings (or immovable property rights) was not transferred along with ownership of the housing; many dwelling-owners' associations do not have sufficient resources to ensure proper maintenance of the housing facility let alone to finance energy-efficiency improvements.

Transferring to the recently created municipal housing companies ownership of the housing stock, the former KWVs only had administered, took the form of a multi-step process:

1. Establishment of municipal housing companies on 01 July 1990.
2. Separation of public land for roads, paths, squares, public green etc. off from the land to be allocated to the housing companies. Those companies obtained the land on which buildings stood and the adjoining green and garden areas, including the interior courtyards of residential buildings, parking places, waste collection areas and smaller street areas. From that point on, the housing companies were solely responsible for the care and maintenance of these areas of private housing land as well as for the liability associated with ownership thereof.
3. Loans for housing construction previously recorded by the DDR authorities were transferred into Inherited Debt Fund (Erblastenfonds) of reunited Germany and the housing companies had to take them over as "inherited liabilities" (Altlasten) in the form of loans, assessed as a rule at 150 DM/m<sup>2</sup> residential space, which had to be serviced and paid off. At the same time, the companies were required to sell part of their stock (statutory obligation to undertake partial privatization).
4. By selling housing facilities to third parties, the companies fulfilled their privatization obligations under the legislation regulating inherited liabilities while at the same time generating equity with which to modernize the housing stock they still held. Purchasers were, as a rule, other housing companies: interest on the part of tenants in acquiring their residential units or joining with other residents to form housing cooperatives from the stock was very limited.
5. The housing companies were obliged under the Act on the Regulation of Unresolved Issues Concerning Assets (Gesetz zur Regelung offener Vermögensfragen) to return to its qualified previous owners or their heirs any of the real estate transferred to them that had come into state ownership through its expropriation by GDR authorities from private owners.
6. The German legislature decreed that the low GDR rents should be brought up to the market level in a gradual fashion. In a process that lasted ca. 10 years, rents in the territory of the former GDR were adjusted and the basic rental fee separated from ancillary expenses. Instead of the €0.60 /m<sup>2</sup> of residential space paid in 1990/91, a tenant in the municipal districts dominated by prefab

buildings [*Plattenbau*: buildings constructed of prefabricated concrete panels] now pay ca. €5/ m<sup>2</sup> in basic rent plus an additional € 2.50 for operating costs.

At the end of that process, the housing companies were the fully-competent owners of their housing facilities with mortgageable real estate and a reserve of genuine equity in the form of the liquidity generated through the sales. With the adjusted rents, they were able to finance the service of debts for inherited liabilities and for newly acquired loans. The hope was that the great deficiencies of the housing units with respect to housing quality, building infrastructure, thermal insulation and design could be corrected through retrofitting.

## 2. Public funding programmes to meet the need for structural adaptation in Berlin

With the decision of the Bundestag to move the German parliament and government back to Berlin, Berlin's government anticipated an increase in the demand for housing in what was already a tight housing market. Berlin correctly saw a valuable potential in the ca. 273,000 housing units in prefab buildings in the eastern section of the city, one whose value should be increased through structural adaptations to bring the housing up to modern standards. The studies commissioned by the city in 1992 revealed that the architectural substance in question was sound, that the required improvements in building infrastructure, equipment etc. were feasible and that the total costs for retrofitting activities would, depending on the type of building, require little more than one quarter to one third of the amount that construction of a comparable new structure would entail. The total cost for complete rehabilitation was calculated at around €400/m<sup>2</sup>. That figure included costs for the planned energy-efficiency improvements, in the amount of ca. €250 /m<sup>2</sup>. The projected total expenditure for the modernization of all housing units in prefab buildings worthy of preservation was calculated at ca. 6.5 billion euros.

On the basis of those studies, the Senate of Berlin initiated the preparation of public financing programmes for the large prefab-building housing estates: these were developed in a dialogue between the administration and those few housing companies active in the large housing estates in the early years after reunification.

The companies were obliged to do the following:

- raise part of the investment volume themselves,
- take out subsidized interest-rate loans for the energy-efficiency improvements from the federal programme of Kreditanstalt für Wiederaufbau (KfW), the German state-owned development bank; loans of that type were available in an amount of ca. €250 /m<sup>2</sup>.

Berlin became involved by providing a term-limited interest subsidy through its own support programme only in cases where an expenditure per residential unit of €20,000 was exceeded. The companies were required to ensure resident participation in the rehabilitation process, but they could do so on their own terms.

The period of investment in the comprehensive renovation of prefab building housing units under this strategy extended mainly from 1995 to 2005. Investments made earlier, in the 1990-1995 period, (creation of outdoor facilities and parking places, new heat-distribution stations etc.) had reduced the rehabilitation requirements. Around one third of the units required complete rehabilitation, while one third needed only partial renovation with a focus on energy-efficiency measures. A small number of prefab building housing units were eradicated through demolition.

According to the calculations of Berlin's Senate Department for Urban Development, around 5.5 billion euros had been invested in the rehabilitation of housing units in East Berlin prefab buildings under this strategy by 2005. Average rehabilitation investments were cited at €20,000 per unit (BEEN-Handbuch, p.90); however, some housing had greater investment requirements. Funds from a special programme of the Land of Berlin were drawn on for 60,000 residential units (BEEN-Handbuch p. 88). Financing of the total investment can thus be broken down as follows:

Total investment for measures under this strategy in the 1995-2005 period was ca. 5.5 billion euros. Federal funds issued (subsidized interest-rate loans from KfW) for ca. 260,000 units, at max. €250 /m<sup>2</sup> res. space, reached an estimated total of ca. 4.5 billion euros.

The Land of Berlin supplied interest subsidies for 60,000 units in a total of ca. 0.5 billion euros. The companies had to bear the remaining costs at a total of ca. 0.5 billion euros. Added to that were the investments made by the housing companies before 1995 and after 2005, and also their investment for “additional measures” to improve housing quality that were not eligible for subsidies, so that the calculated value of €400 /m<sup>2</sup> residential space may have been exceeded in some cases.

Financial statements in table format provided the basis for coordination between the housing companies and the government. These tables presented the financing requirements for each of the individual neighbourhoods in the districts concerned, subdivided into 12 packages of measures and their expenses. The matrix generated from that served as an important control instrument for the financing coordinator put in place by the city and for the budgeting activities of the Berlin Senate, as well as for the companies themselves and their supervisory bodies.

The matrix below presents the intermediate results in 2000 of the large Hellersdorf housing district, which is located in the easternmost section of Berlin and has approx. 43,000 residential units.

The rows present the individual measures that remained to be carried out at that time, broken down by the different residential neighbourhoods (columns) with the associated type of residential building.

Out of a total investment of 1047.27 million euros, 574.18 million had already been carried out in the 1994-99 period. The remaining measures required funds in the amount of 473.09 million euros.

Matrix: Neighbourhood-based rehabilitation and modernization requirements for Hellersdorf as of 1999/2000 (Amounts for the measures are in million euros)

Measures as per 1994 co. concept	Residential neighbourhoods											
	Leipziger Tor	Kastanien Allee	Branitzer Platz	Rathaus-viertel	Schleif-pful	Alte Hellersdorfer Str.	Kienberg-vertel	Rotes Viertel	Kirchen-dreieck	Gelbes Viertel	Graben-viertel	All
Roof	-	-	-	1.14	0.46	-	-	1.95	0.39	-	-	3.94
Façade: thermal ins.-compound sys.	11.20	12.40	5.45	6.24	8.24	32.96	-	11.20	3.87	-	10.53	102.09
Windows	4.20	4.65	1.37		1.54	2.64	-	2.26	1.69	-	3.29	21.64
Staircase repairs /intercom	0.25	0.97	0.11	0.11	0.18	-	-	-	0.14	-	0.79	2.55
Lift repair	-	-	-	-	-	1.20	-	-	-	-	-	1.20
Building entries	-	-	-	-	-	0.18	-	-	-	-	-	0.18
Cellar wall rehab.	-	0.26	-	-	-	0.15	-	-	-	-	-	0.41
Balcony inst./balustrade.	-	1.14	2.63		-	4.12	-	-	-	-	-	7.89
Courtyards, gardens	2.05	2.42	0.43	0.39	0.58	1.75	-	2.61	0.27	0.92	1.29	12.71
Bldg connection sta., new	0.53	0.69	0.31	0.35	0.46	1.18	0.62	1.01	0.21	0.92	0.59	6.87
Plumbing, comp.	19.40	17.51	9.45	10.81	9.86	36.56		15.66	6.70	24.10	12.61	162.66
Ventilation	3.00	3.32	1.46	-	2.20	5.65		4.84	1.04	4.41	2.82	28.74
Σ in mil. EUR	40.63	43.36	21.21	19.04	23.52	86.39	0.62	39.53	14.31	30.35	31.92	350.88
Add'l measures, mil. EUR												122.21
Total funding req., mil. EUR												473.09
Investments by end 1999, mil. EUR												574.18
Total investments, mil. EUR												1047.27
Total investments, mil EUR/m <sup>2</sup>												772.56

Source: WoGeHe (Hellersdorf housing company), Wohnungsbaugesellschaft Hellersdorf GmbH, Technical Assessment of Stock Dept.

Investments for what were called the “additional measures”, at 122.21 million euros, were to be financed by the housing companies from their own assets. These additional measures involved, for instance, the addition of lifts to the 5-story residential buildings, alterations to the interior division of the units (floor plan changes) and the addition of balconies – measures that were desirable to increase the appeal of the housing supply but as they were not eligible for subsidies had to be financed partially through rent adjustments and partially from non-refundable outlay of the companies’ own capital.

The remainder of 350.88 million euros are “subsidizable costs”. The housing companies had to raise 15% of the total from their own assets in the economic viability calculations they were required to prepare for the support applications submitted to the KfW and the Land of Berlin.

The funds supplied by the federal government (KfW) and the Land of Berlin were issued in the form of loans. The servicing of those loans is part of the current expenditures that must be covered from the income of rental fees.

### 3. Financing example: Modernization of a housing block in Hellersdorf’s Schleipfuhl neighbourhood

Total no. of residential units: 1000 units, with 62,000 m<sup>2</sup> of residential space

Subsidizable costs: €30,400/residential unit

Financing:	Housing co. assets	15%	€4,560,000
	KfW loan	€255/m <sup>2</sup>	€15,840,000
	IBB loan	(Berlin)	<u>€10,000,000</u>
			€30,400,000

The ongoing expenditures for servicing loans from inherited debt and the newly issued public loans (interest and repayment), as well as those for other management costs (administrative expenses, maintenance fees, lost rent risk) must be covered by rental revenues.

In the 1<sup>st</sup> - 4<sup>th</sup> years, ongoing expenditures were set off by rent revenues at the same level.

With the 5<sup>th</sup> year, the grace-period for repayment of the capital came to an end, and ongoing expenditures rose accordingly. These could in turn be covered by rents, which had gone up in the meantime. Thus overall financing was dynamic in nature: i.e., it was designed from the outset to take into account the gradual increase of rents up to the average level of market-rate rents in Berlin. Early on, the fall in interest rates on the capital markets meant that than the original interest rate, which initially represented a subsidized rate offered by the KfW, was no longer competitive. That made it possible for housing companies to refinance their remaining debt on KfW loans by more advantageous bank loans.

It was only thanks to the extensive improvement and renovation of the districts and their housing stock, which was paid for with public and private funds, that it was possible to stabilize the large housing estates and equip their housing supplies to hold their ground in the relaxed housing market. Regularly conducted resident surveys confirm their high level of satisfaction with the post-rehabilitation housing.

### 4. Conclusions for the exchange of experiences within the Urb. Energy project:

#### Transferability of the Berlin example:

In its privatization of the formerly nationally-owned housing stock of post-war buildings, Germany opted for a path different from that taken by most of the other formerly-socialist countries.

Today, housing owners in many of those countries tend to lack the organizational and institutional requirements necessary to sustainably refinance investments in the improvement of the housing stock.

However, there are important aspects of the Berlin experience with the redevelopment of the prefab building housing estates of East Berlin that are transferable, specifically:

- The holistic approach adopted within the framework of integrated urban district planning, allowing the coordination of necessary measures (falling within the areas) of public and private responsibility;
- The separation of the land of a housing estate dating from the socialist era into public and private areas, and the transfer of ownership of private areas to housing companies or to the associations of the owners of residential units, which must be strengthened in that context (empowerment);
- A careful analysis of the stock, from which improvement concepts for each building type concerned can be derived, and the development of an improvement strategy for the entire district as well as for each of its buildings – differentiating between measures necessary to retain structural integrity, those intended to improve energy efficiency and those that are not necessarily requisite but are nonetheless desirable, which could initially be separated from the others;
- The creation of a national fund for the improvement of the energy-efficiency of housing, designed to remain in place for a long time. By opting for the longer term, the state creates a sense of security with

respect to planning for the relevant actors; the funds can also provide support in the medium and long term from the revenue coming in from repayments.

**European and national support programmes:**

In principle, it does not lie within the competence of the European Union to become involved in the housing and urban development of its member countries. On an exceptional basis only, European promotional funds from the Structural Fund for the 2007-2013 period were earmarked for investment in residential buildings for energy efficiency measures. It is not clear whether this exception will be extended beyond the present 7-year period. Thus it is all the more important that government programmes supporting energy-efficiency measures in housing in member countries be made viable for the long term: the national interest of those countries required them and they are also compulsory when resources from European support programmes are used, i.e. essential complementary resources.

**Creation of efficient structures on the housing-owner side:**

States that transferred ownership of residential units to the tenants residing in them in the 1990s also shifted the responsibilities for their upkeep onto the new owners, while leaving them to confront the problems of maintenance/repairs and rehabilitation on their own. Associations of owners of residential units should be strengthened to render them capable of acting as efficient partners in the rehabilitation of their housing facilities.