

Barrio Women and Energopower in Medellín, Colombia

JUAN FERNANDO VELÁSQUEZ ATEHORTÚA*

Abstract. This article argues that the prepaid energy system put into operation in Medellín and across Colombia worked as an expression of ‘energopower’; that is, energy as a means to govern societies. The article uses press archives and company statements, official statistics and group interviews to show how energopower operates in Medellín along three lines: that Empresas Públicas de Medellín, the city’s public utility company, encouraged disconnected and displaced people as new buyers of prepaid energy services instead of citizens entitled to those services; that the implementation of the prepaid energy system coincided with the vertiginous capitalisation that allowed the city to fund its ‘Social Urbanism’ and EPM to expand operations across Colombia and other countries in Latin America; and, that prepaid electricity as a tool of energopower subjugated displaced and disconnected populations to new forms of affordability that prompted *barrio* women to understand and oppose its disciplining methods of domination.

Keywords: energopower, Medellín, Colombia, energy, *barrio* feminism, Social Urbanism

Introduction

In 2002, electricity companies on the Atlantic coast of Colombia were hit by a major financial crisis. According to press reports, the root of the problem was the so-called ‘overdue payment’ or *non-payment* culture, which brought a number of companies to the brink of bankruptcy, and put the whole Caribbean region in danger of having its electricity supply cut off. The majority of the defaulters were among the country’s 4 million displaced persons generated by the Colombian war, who had taken refuge in sub-standard

Juan Fernando Velásquez Atehortúa is an associate professor in Gender Studies in the Department of Cultural Sciences at Gothenburg University, Sweden. Email: juan.velasquez@gu.se

* I wish to thank the Red de Mujeres Populares, and Local Women Leaders from the East Central Districts in Medellín; the staff in the Centro de Estudios Regionales at Universidad de Antioquia for hosting my visit during 2010; the Swedish Research Council Formas for funding this research and especially the anonymous referees from *JLAS* who read my early drafts and provided valuable feedback.

neighbourhoods, transforming the main cities into the most densely populated on the continent.¹ The government and Congress had gained power with the support of paramilitary groups that had been spreading terror in the areas once home to these displaced persons.² At the beginning of his term in office, President Álvaro Uribe (2002–10), inspired by experiences from countries facing similar problems, proposed the introduction of a new payment system for electricity.³ In 2003, Congress approved Law 812 introducing the ‘energy prepayment’ system.⁴

Similar energy prepayment systems have also been, or are in the process of being, implemented in other Latin American countries.⁵ In Argentina, power cooperatives started to use this approach between 1992 and 1994.⁶ The economic crisis which gave rise to the *cacerolazo* (popular public protest) in 2001 led to a widespread reduction in income and large-scale power cuts due to non-payment of electricity bills. The energy prepayment system was then extended to address the payment collection crisis affecting companies in the sector.⁷ Recent research states that there are around 154,400 prepaid

¹ The ten major urban areas in Colombia have an average population density of 37,600 inhabitants per square mile (i/mile²). The average for South America is 15,200 i/mile² and the global average is 11,500 i/mile². *Demographia*, ‘Demographia World Urban Areas (Built Up Urban Areas or World Agglomerations) 11th Annual Edition. January 2015.

² Jemima García-Godos, ‘Transitional Justice and Victims’ Rights before the End of a Conflict: The Unusual Case of Colombia’, *Journal of Latin American Studies*, 42: 3 (2010), pp. 487–516, 493. Claudia López Hernández, *Y refundaron la patria...de como mafiosos y políticos reconfiguraron el Estado colombiano* (Bogotá: Corporación Nuevo Arco Iris, 2010).

³ *Semana.com*, ‘A oscuras’, 1 Dec. 2002.

⁴ *Diario Oficial*, No. 45.231, 27 June 2003.

⁵ Energy prepayment was developed during the transition from apartheid to democracy in South Africa and in countries with social and humanitarian crises such as Rwanda, Uganda or Nigeria. See Wendy Annecke, ‘“Still in the Shadows”: Women and Gender Relations in the Electricity Sector in South Africa’, in David A. McDonald (ed.), *Electric Capitalism – Recolonising Africa on the Power Grid* (Cape Town: HSRC Press – Earthscan, 2009), pp. 288–320. Greg Ruiters, ‘Contradictions in Municipal Services in Contemporary South Africa: Disciplinary Commodification and Self-Disconnections’, *Critical Social Policy*, 27: 4 (2000), pp. 487–508; Antina von Schnitzler, ‘Travelling Technologies: Infrastructure, Ethical Regimes, and the Materiality of Politics in South Africa’, *Cultural Anthropology*, 28: 4 (2013), pp. 670–93. Francis M. Mwaura, ‘Adopting electricity prepayment billing system to reduce non-technical energy losses in Uganda: Lesson from Rwanda’, *Utilities Policy*, 23 (2012), pp. 72–9. Gheisa R. Telles Esteves, Fernando L. Cyrino Oliveira, Carlos Henggeler Atunes, and Ricardo Castro Souza, ‘An Overview of Electricity Prepayment Experiences and the Brazilian New Regulatory Framework’, *Renewable and Sustainable Energy Reviews*, 54 (2016), pp. 710–11.

⁶ G. R. Telles Esteves, F. L. Cyrino Oliveira, C. Henggeler Antunes and R. Castro Souza, ‘An Overview of Electricity Prepayment Experiences and the Brazilian New Regulatory Framework’, pp. 704–22.

⁷ Wendy Annecke and Marialba Endelli, ‘Gender and Payment Electricity in Merlo, Argentina’, *Energia News*, 9: 1 (2006), pp. 18–20. Wendy Annecke, ‘Still in the Shadows’, pp. 288–320.

meters installed, most of them in rural areas.⁸ The system was even introduced as an experiment in remote areas of Brazil in 2005,⁹ and later extended to the whole country through *Luz para todos* (Electricity for All programme).¹⁰ In Peru, as with Brazil, 'the focus group is the extremely poor consumers located in rural areas' where there are 5,000 prepaid meters installed in 86 localities.¹¹ In the Dominican Republic the goal until 2015 was to install 300,000 meters and the main target group was rural communities located in isolated areas.¹² According to recent research it is expected that 37 million prepaid metering services will be installed worldwide by 2017.¹³

In developed countries the prepaid system has been used to force low-income groups into prepayment metering plans when they run into financial difficulty.¹⁴ The implementation of these plans indicates that prepaid energy is more expensive than other ways of paying,¹⁵ with potentially life threatening consequences.¹⁶ The approach of this article, however, is that the introduction of the prepayment system in Colombia has become an effective way of managing the lives of the millions of displaced persons, regulating their access to energy, water and other essential utilities in towns and cities. Introducing the prepayment system is a form of biopower, or more specifically, energopower, 'a genealogy of modern power rethinking political power through electricity and fuel as an analytical tool', and which Dominic Boyer goes on to define:

...as an alternative genealogy of modern power, as an analytical method that looks in the walls to find the wiring and ducts and insulation, that listens to the streets to hear the murmur of pipes and sewages, that regards discourse on energy security today as not simply about the management of population (e.g., 'biosecurity') but also about the concern that our precious and invisible conduits of fuel and force stay bringing and humming.¹⁷

⁸ Telles Esteves et al. 'An Overview of Electricity Prepayment Experiences', p. 711.

⁹ ANEEL, 'ANEEL desenvolve estudos sobre pré-pagamento opcional de conta de energia', 16 May 2011.

¹⁰ Portal Brasil, 'Aprovada audiência pública sobre regulamentação de energia pós e pré-paga', 28 June 2012. Telles Esteves et al. 'An Overview of Electricity Prepayment Experiences', pp. 719.

¹¹ *Ibid.*, pp. 712.

¹² *Ibid.*

¹³ Villareal et al. quoted in Telles Esteves, 'An Overview of Electricity Prepayment Experiences', pp. 705.

¹⁴ Kimberley C. O'Sullivan, Philippa L. Howden-Chapman, Geoffrey M. Fougere, Simon Hales and James Stanley, 'Empowered? Examining Self-disconnection in a Postal Survey of Electricity Prepayment Meter Consumers in New Zealand', *Energy Policy*, 52 (2013), pp. 277–87, p. 284

¹⁵ Telles Esteves et al., 'An Overview of Electricity Prepayment Experiences', pp. 715

¹⁶ O'Sullivan et al., 'Empowered?', p. 284.

¹⁷ Dominic Boyer, 'Energopower: An Introduction', *Anthropological Inquiry*, 87: 2(2014), pp. 309–33, 325.

As Boyer also argues, inspired by Bruno Latour's studies, 'the politics of energy are becoming an acute "matter of concern" [...], when the effects of increasing energy consumption are transforming planetary ecology in deeply troubling ways, it seems timely to inquire more deeply into those powers, to interpret not only what they signify in various settings, but also what work they do'.¹⁸ In this regard, Boyer has stressed that 'there could have been no consolidation of any regime of modern biopower without a parallel securitization of energy provision and synchronization of energy discourse'.¹⁹

The implementation of the prepaid energy system in Colombia can be viewed as an instrument of energopower for governing society in its current state of forced migration and urbanisation. The first city in the country to implement the system was Medellín. The city's Empresas Públicas de Medellín (Public Utility Company, EPM) is renowned in Colombia as a model in the provision of servicios públicos domiciliarios (domestic public services, SPD) regarding water, electricity, gas, telecommunications and, more recently, solid waste management.²⁰ Much of Medellín's budget comes from the profit generated by EPM, around 30 per cent of which is channelled directly into the city.²¹ Since its foundation in the 1950s, the connectivity schemes developed by the company have helped integrate informally built districts into the official consumption system of the city's domestic public services, which has turned EPM into a major player in normalising these communities and managing strategic infrastructure works. For this reason, the way that the city has managed EPM has been highlighted as an important model of sustainability for the Global South.²²

By adopting the prepaid energy system, the managing director of EPM and the mayor of Medellín, on the one hand, have ensured that the new system is 'a socially-responsible alternative for those users who have had their services cut off for non-payment, or who are in danger of them being cut off'.²³ On the other hand, they have maintained that 'this scheme changes the history of energy marketing in the residential band of most limited incomes'.²⁴ Both the socially-responsible nature and the historical change that prepaid energy has introduced into marketing are discussed in this article dealing with its

¹⁸ Dominic Boyer, 'Anthropology Electric', *Cultural Anthropology*, 30: 4 (2015), pp. 531–9, 531–2.

¹⁹ Dominic Boyer, 'Energopower', p. 327.

²⁰ *El Tiempo* 'El concejo de Medellín aprobó que Emvarias sea otra filial de EPM', *El Tiempo*, 8 May 2013.

²¹ Milford Bateman, Juan P. Durán Ortíz and Kate Maclean, 'A Post-Washington Consensus Approach to Local Economic Development in Latin America? An Example from Medellín, Colombia', Overseas Development Institute, *Background Note* April 2011, p. 2.

²² *Ibid.*

²³ *El Mundo*, 'EPM masificará la energía prepago: Junta Directiva aprobó implementar el sistema en los estratos 1, 2 y 3', 4 Oct. 2006.

²⁴ Caracol Radio, 'Venderán energía prepago en Medellín', 3 Oct. 2006.

implementation as an expression of energopower in Colombia. It emphasises how energopower has been used in Medellín in three different lines. The first is the way in which EPM builds on the notion of displaced persons being new buyers of prepaid energy services; the second demonstrates how the prepaid energy system contributes to the financing of both the ‘Social Urbanism Planning’ model for the city and the regional expansion of EPM’s services in Colombia and other Latin American countries; and the third is how prepaid electricity as an energopower tool shapes the behaviour of the population in the lowest income bands and how barrio women discover and respond to its disciplinary methods of domination.

The first two sections of this article are based on press archives and company statements used as expressions of propositional discourse regarding the implementation of prepaid energy. The aim is to recreate what Günel refers to as an ‘energo-political experiment’ designed to educate populations into developing new habits of energy use while, at the same time, instituting disciplinary measures to regulate the consumption behaviour of individuals.²⁵ In this respect, the third section is based on group interviews with women leaders in low-income neighbourhoods conducted in March 2010. Their accounts provide important insights into the disciplinarian nature of energopower which has thus far been little studied in available literature on both EPM and Medellín as a paradigm of energy and urban living. The survey in Medellín examined the role played by women in two scenarios: the first addressed the issues of sustainable development in the city in general and the second the planning of three new library parks on the outskirts of Medellín. Their analysis focused on the realities of life in the deprived areas on the outskirts of the city and interacting with the bulk of the women’s social movement with its own organisational identity and epistemology, in what they refer to as a *feminismo barrial*. This ‘barrio feminism’ has its origins in the organisation of ‘housewives’ around their rights, where emphasis was placed, in particular, on the value of their work in society. This multifarious value finds expression in parenting, the care economy, the relationships women have with the church, school and politics, and in issues of self-value and self-esteem, with particular regard to the effect violence has on women, their mental health, depression caused by relationships with partners and children, how to manage money in the family and the relationship women in the home have with authority. To express their barrio feminism, women began to form groups around topics they had most in common regarding their lives in the barrios. Among the central themes that emerged was that of ‘economic, social and cultural rights’ to education, health and to the environment:

²⁵ Gökçe Günel, ‘Ergos: A New Energy Currency’, *Anthropological Quarterly*, 87: 2 (2014), pp. 359–76, 361–2.

We can only deal with the theme of water and utilities if we have these rights. Why? Because ... the privatisation process has resulted in public utility rates becoming unaffordable. And there's a slogan, for example, that says that we women, or our families, have '*either to eat or to pay*' for domestic public services.²⁶

As witnesses of how energopower has transformed the city and their lives, they insisted that the new way of providing both water and energy regulated the bodies of both the people and the communities.

The second group of women was contacted during the library parks planning workshops run by staff from the Empresa de Desarrollo Urbano (Urban Development Enterprise, EDU). The fieldwork involved following women who were attending a workshop organised by researchers from the National University, recording their contributions to the strategic housing plan for the city. As with the first group, these women were also leaders on community action boards. Their experience was more local and was concentrated in the East Central districts of the city where EPM had implemented the prepaid energy system on a mass scale, and the mayor was preparing to launch a *Proyecto Urbano Integral* (comprehensive urban project, PUI). Using their barrio feminism, these women criticised the *redefinitions* EPM was invoking to describe the nature of the prepaid system. These redefinitions embody abnormalities that will be addressed in the final section along what Gayatri Spivak has studied as a catachresis, 'a "wholesome" abuse of a figurative move' to show how women are deliberately stripped of political power by those who speak on their behalf.²⁷ The catachreses the women touched on are those likely to rename displaced and disconnected persons as 'bad debtors', decreased quality of life as 'affordability', forced inclusion in energy prepayment as 'Social Urbanism', and submission as 'consensus and solidarity'.

Energopower and Women

As can be guessed from the preamble, the introduction of prepaid energy is the manifestation of a social class struggle between the ruling elite and displaced Colombians who are far from being a homogeneous group. A large number of them were women, young and old, of peasant, Afro-Colombian and indigenous extraction. Ninety per cent of them were from rural areas, 34 per cent of indigenous origins and 9.2 per cent of African descent. About 48 per cent were under 15 years of age and between 3 and 6 per cent were over 60 years of age, of whom, in turn, 70 per cent were women. Thirty-six per cent of teenagers were pregnant and 98 per cent of children under four had

²⁶ Aurora, Low-Income Women's Network, group interview, March 2010. All names of women quoted are pseudonyms.

²⁷ Gayatri C. Spivak, *A Critique of Postcolonial Reason – Toward a History of the Vanishing Present* (Cambridge, MA: Harvard University Press, 1999), p. 19, 254–7.

not received their full set of vaccinations, and 50 per cent of all displaced persons lived in sub-standard housing in run-down neighbourhoods.²⁸

The intersection between class, gender, age and ethnicity defines the relationship between the rulers and ruled that Michel Foucault, in his notion of biopower, formulated as a series of practices designed to standardise both life and the body, and to determine what kind of life people are allowed to live.²⁹ Foucault applies this analysis to his study of domination by performing three essential tasks. The first is to show how a social subject is constructed in different states of subjugation. The second is to make power relationships transparent, showing how operators of domination complement each other. And the third is to demonstrate the technical tools used on a daily basis to mould the body of those subjects and social communities that are subjected to domination.³⁰ As regards relationships of energopower domination in Medellín, the first of these tasks is to demonstrate how the introduction of the prepaid energy system is designed to think of disconnected people as a new 'social subject in a position of submission'. The second task is to demonstrate how operators of domination are presented as a multi-service company such as EPM, with the political legitimacy to implement new systems and technologies. The third is to demonstrate how prepaid energy meters function as a tool to subjugate and mould the behaviour of those subjected to domination through energopower.

By performing these three tasks, it is also possible to understand the way in which the city promotes different kinds of ergo-political experiments to regulate populations into developing new habits of energy use while implementing disciplinary measures to govern the behaviour of individuals.³¹ To analyse these experiments, it is crucial to consider how critical conditions are for the poor, those displaced by war, and for other migrants who are both subjects of domination and subjects of opposition to energopower. As will be discussed in the final section, the women from the neighbourhoods are making a prismatic study of prepayment energy in connection with barrio feminism. That is, simultaneously looking at bodies such as EPM, and local and national government, from the viewpoint of the relationships that EPM was trying to impose the new prepayment meters on the population. These meters, in their role as regulatory devices, thus become agents with the power to mould the population into behaving how energopower wants them

²⁸ Saúl Franco, Clara M. Suárez, Claudia B. Naranjo, Liliana C. Báez and Patricio Rozo, 'The Effects of the Armed Conflict on the Life and Health in Colombia', *Ciencia e Saúde Coletiva*, 11: 2 (2006), pp. 349–61.

²⁹ Didier Fassin, 'Another Politics of Life is Possible', *Theory, Culture & Society*, 26: 5 (2009), pp. 44–60, 49.

³⁰ Michel Foucault, *Society Must be Defended – Lectures at the Collège de France 1975–1976*, translated by David Macey (New York: Picador, 2003), pp. 45–6.

³¹ Günel, 'Ergos', pp. 361–2.

to. With this kind of agency, material feminism, inspired by techno-scientific studies, takes a holistic view of phenomena instead of viewing things, bodies and relationships in fragments.³² To overcome this *thingification*, Karen Barad intends to take what she refers to as an agential realism that enables one to ‘acknowledge nature, the body and materiality in the fullness of their becoming’.³³ Material feminism thus promotes the idea of looking at how this agency generates diffraction, defined by Barad as ‘mapping of interference, not of replication, reflection, or reproduction. A diffraction pattern does not map where differences appear but, rather, maps where the *effects* of differences appear’.³⁴ Thus, energopower can be seen as a diffractive phenomenon that generates a broad spectrum of effects from the socially differentiated energy consumption of cities. In studying Boyer, the need to unify speech, materiality and history is highlighted, which, incidentally, tallies with what Barad regards as to ‘acknowledge nature, the body and materiality in the fullness of their becoming’.^{35,36}

As tools to be used to mould social behaviour, contemporary prepaid meters were designed in South Africa with two goals in mind, the first being the capitalisation of the energy companies. As David Harvey writes, on studying privatisation policies proposed in South Africa, the World Bank ‘promoted, for example, either the privatisation of water or “total cost recovery” by municipality-owned utilities. Consumers paid for the water they used, rather than receiving it as a free good’.³⁷ The second is monitor ‘non-payment’ behaviour adopted by the irregularly connected majority of South Africans to oppose the racist apartheid regime.³⁸ The academic community is still being called on to mould this behaviour. To adapt the prepayment system for implementation in countries such as India, some technologists have devised it as a means of punishing those people described as electricity ‘thieves’.³⁹ However, this form of punishment generally demonstrates what other authors have highlighted as being gender inequalities in the use of electricity.⁴⁰ The women interviewed in Medellín, in continuing to be responsible for the area of care, consider that having their domestic public services disconnected had a direct effect on them.

³² Karen Barad, ‘Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter’, *Signs*, 28: 3 (2003), pp. 801–31.

³³ Barad, ‘Posthumanist Performativity’, p. 812.

³⁴ Haraway, 1992, cited in Barad, ‘Posthumanist Performativity’, n. 2, p. 803.

³⁵ Boyer, ‘Energopower’, pp. 326.

³⁶ Barad, ‘Posthumanist Performativity’, p. 812.

³⁷ David Harvey, *The New Imperialism* (Oxford: Oxford University Press, 2005), p. 159.

³⁸ von Schnitzler, ‘Travelling Technologies’, pp. 670–93.

³⁹ Rajamani Krishnan, ‘Meters of Tomorrow’, *IEEE Power and Energy Magazine* art. no. 4457973 (2008), pp. 96, 93–4. Soma S. Depuru, Lingfeng Wang, Vijay Davabhaktuni and Nikhil Gudi, ‘Measures and Setbacks for Controlling Electricity Theft’, *North American Power Symposium*, no. 5619966 (2010).

⁴⁰ Annecke, ‘Still in the Shadows’, pp. 288–320.

Forcing them, for example, to have to carry water, whenever they are suspended from the right to use these utilities or have this right withdrawn: these limitations have a knock-on effect on their other rights, such as their right to participate and their right to recreation. In addition, it prevents girls from going to school, which is the reason why we have said that this is a political issue for women.⁴¹

The political implications of disconnection are identical to those experienced by women in other countries. For example in Argentina, in adjusting the use of prepaid energy, women substituted with manual labour the tasks they previously performed with domestic electrical appliances. The electricity austerity characterised by prepaid energy trapped these women, forcing them to spend time doing housework instead of social and political activities.⁴²

The Subjects of Energopower's Discourse in Medellín

As a platform for launching a prepaid energy system in the country, Medellín is a city that has seen various regimes come and go. Since the late nineteenth century, between 80 and 90 per cent of the gold exported from Colombia was mined in the Antioquia region and sold mainly in the capital, Medellín. The city thus gave birth to the first banks in the country, and a new class of merchants laid the foundation for its industrial leadership.⁴³ Up until the 1970s, the city was the epicentre of Colombian textile and coffee exports. During the 1980s, the economic recession created the conditions for the emergence of two powerful business groups organised in a similar way to the Japanese *keiretsu*, a system of cross-ownership.⁴⁴ The first was the 'Sindicato Antioqueño', better known today as the Grupo Empresarial Antioqueño (Antioquia Business Group, GEA), which brought the major industries in the cement and construction sector, the insurance and finance companies and the food industries together in a system of cross-ownership, in which each company owns 30 per cent of the others, and contributes to a large concentration of capital in the city.⁴⁵ The second 'business' group was the Cartel de Medellín, a network of drug traffickers who divided up their risks and investments equally, albeit under the leadership of Pablo Escobar, which turned Medellín into the world capital of drug trafficking.⁴⁶ Economic liberalisation arrived in the 1990s, and GEA entrepreneurs – a nucleus of 125 of the

⁴¹ Aurora, Red de Mujeres Populares (Barrio Women's Network), group interview, March 2010.

⁴² Annecke and Endelle, 'Gender and Payment Electricity', pp. 18–20.

⁴³ Jairo Bedoya, *Violent Protection in Colombia – The Case of Medellín from the Nineties Onwards* (Medellín: Instituto Popular de Capacitación, 2010).

⁴⁴ *Blomberg Businessweek* (International Edition), 'The Other Medellín Cartel', 21 April 1996.

⁴⁵ *Dinero*, 'Nace el sindicato Antioqueño', 21 Aug. 2013.

⁴⁶ Phil Williams, 'Transnational Criminal Organizations: Strategic Alliances', *Washington Quarterly*, 18: 1 (1995), pp. 57–72.

top companies in Colombia – accounted for 7 to 8 per cent of the country's GNP. Liberalisation coincided with the war against the 'Medellín Cartel' when the homicide rates in the city rose to a point where they were the highest in the world.⁴⁷ To address the violence, the city's elite launched various urban interventions so that each wave of violence was followed by a 'wave of concrete', which manifested itself in the form of large urban buildings. The Medellín Cartel was gradually replaced by a network of extreme right-wing paramilitary groups.⁴⁸ This network, working symbiotically with the state, managed to establish a 'violent protection economy', responsible for reducing lethal violence.^{49,50}

In the early years of the twenty-first century, with the reforms introduced by the government of Álvaro Uribe, EPM became the EPM Group and began to define transnational objectives.⁵¹ As a kind of public *keiretsu* by its very nature as a multi-service company and in symbiosis with the GEA, its new structure consolidated the group as the leading provider of public services in Colombia. EPM secured a monopoly in the supply of clean energy sources in the Antioquia region, and initiated wastewater treatment and the environmental recovery of the Medellín River and, in the 2010s, it began an ecological recycling programme for the city's solid waste. EPM sales in the country generated huge profits that were transferred to Medellín to start the city's 'makeover', with what was termed 'Social Urbanism'.^{52,53} During the same period, the GEA moved on to conquer markets in Latin America and the United States, and its companies dominated the insurance, cement and food industries across the continent. In the 2010s, following in the footsteps of the GEA, EPM began exporting most of its services to other Colombian and Central American cities and rural areas. During the same period, technical experts and city planners were able to profile Medellín as a global benchmark for

⁴⁷ Jairo Bedoya, *La protección violenta en Colombia – el caso de Medellín desde los años noventa* (Medellín: Instituto Popular de Capacitación, 2010), p. 95. Daniel Tubb, 'Narratives of Citizenship in Medellín, Colombia', *Citizenship Studies*, 17: 5 (2013), pp. 627–40, 635.

⁴⁸ Ralph Rozema, 'Urban DDR-processes: Paramilitaries and Criminal Networks in Medellín, Colombia', *Journal of Latin American Studies*, 40: 3 (2008), pp. 423–52.

⁴⁹ Bedoya, *La protección violenta en Colombia*.

⁵⁰ Ralph Rozema, 'Forced Disappearance in an Era of Globalization: Biopolitics, Shadow Networks, and Imagined Worlds', *American Anthropologist*, 113: 4 (2011), pp. 582–93. Tubb, 'Narratives of Citizenship', p. 635.

⁵¹ Kathryn Furlong, 'Water and the Entrepreneurial City: The Territorial Expansion of Public Utility Companies from Colombia and the Netherlands', *Geoforum*, 58 (2015), pp. 195–207.

⁵² Forrest Hylton, 'Medellín's Makeover', *New Left Review*, 44 (2007, March–April), pp. 71–89.

⁵³ Peter Brand and Julio D. Dávila, 'Mobility Innovation at the Urban Margins'. *City*, 15: 6 (2011), pp. 647–61; Alejandro Echeverri and Francesco Orsini, 'Informalidad y urbanismo social en Medellín'. *Newsletter No. 4 Catedra Medellín Barcelona*, 24 July 2012; Jaime Hernández García, 'Slum Tourism, City Branding and Social Urbanism: The Case of Medellín, Colombia', *Journal of Place Management and Development*, 6: 1 (2013), pp. 43–51.

urban innovation to the point of recognition for hosting the World Urban Forum in 2014.

Generally speaking, the transformation of the city over a period of 40 years, from its industrial decay to its rise as an urban, energetic benchmark in the Global South, has profiled it as one of the most resilient cities in the world.⁵⁴ The confluence of the three keiretsus: the GEA, the ‘Medellín Cartel’ and the EPM Group, have made Medellín into a distinct example of the ‘interrelationship between energo-political and bio-political systems’.⁵⁵

Subjects to be Dominated by Energopower

The introduction of prepaid energy in Colombia is simultaneously confronted with similar social conditions to those found in other countries that have implemented the system. As was the case in South Africa, Argentina and Brazil, the system was promoted to generate capital for the energy companies. As in Rwanda or Uganda, the system introduced disciplinary measures to regulate the consumer behaviour of the millions of displaced people forced to migrate to the cities because of the civil war.

The emergency caused by the massive internal displacement forced the Corte Constitucional de Colombia (Constitutional Court of Colombia, CCC), to declare a state of emergency in the country. To restore normality, on 22 January 2004, the CCC promulgated an important ruling, Statement T 25/04, requiring the executive power to take urgent measures to protect the population, with the proposed agendas to be communicated to a National Council on or after 31 March 2004.⁵⁶

More than 95,000 displaced Colombians have settled in Medellín and joined the 180,000 people who could potentially have their utilities in the city disconnected or suspended. Despite the CCC ruling, EPM carried out the first prepaid energy tests in February 2005.⁵⁷ The average monthly per capita consumption in Colombia at that time was 1,058 KWh/month, according to the Comisión de Integración de Energía Regional (Commission on Regional Energy Integration, CIER).⁵⁸ To determine the state subsidy to the poorest sectors, the Comisión Reguladora de Energía (Energy Regulatory Commission, CREG) implemented Law No. 812 of 2003, which set the

⁵⁴ Diane Davis, *Urban Resilience in Situations of Chronic Violence* (Cambridge, MA: MIT/USAID, 2012).

⁵⁵ Boyer, ‘Energopower’, p. 327.

⁵⁶ ‘Sentencia T-25/04 de la Sala Tercera de Revisión’, Corte Constitucional de Colombia, 22 Jan. 2004.

⁵⁷ CODHES (Advisory Office for Human Rights and Displacement), *La atención a la población desplazada en Medellín, 2005*.

⁵⁸ CIER (Regional Energy Integration Commission), ‘Estadísticas de la CIER’, 2008.

average consumption for prepayment users at over 500 KWh/month.⁵⁹ To test the implementation of the system, in 2005 EPM selected 100 users in Bands 2, 3 and 4 who had a consumption of between zero and 200 kWh/month, then regarded as the level of subsistence consumption.⁶⁰ Also in February 2005, the company installed a meter with each family to study their patterns of energy use. EPM was thus able to determine that the prepayment rate would cost the same as the post-payment rate, lowered the consumption subsistence level from 200 to 165 kWh/month, set the costs per kilowatt to Colombian\$ 209 (US\$ 0.07) and the subsidy amount for this consumption to up to 40 per cent for Band 2, and up to 15 per cent for Band 3.⁶¹

In December 2005, that is, almost two years after the CCC ruling, EPM commissioned a survey to obtain a more detailed explanation of the reasons why users defaulted on their payments. The EPM survey was aimed at two groups from across the city. The first consisted of 1,556 families who were connected, but whose ‘utilities had been suspended’ for two to nine months. The second group consisted of 1,673 families who had already been disconnected for over nine months.⁶² The study concluded that the reason that users fell behind in their payments was their lack of income. It also estimated that the number of families who had been disconnected amounted to 70,000.⁶³

The ruling emitted by the CCC in 2004 was ratified again in April 2007, this time to protect displaced women, specifically with respect to ensuring safe access for them to ‘(a) essential food and drinking water, (b) accommodation and basic housing, (c) appropriate clothing, and (d) essential medical services and sanitation’.⁶⁴ In addition, the CCC ruled that the authorities must make special efforts urgently to ensure full participation of women in the planning and distribution of these vital services.

Of the four requirements ruled on by the CCC, three directly involved the duties and obligations of companies such as EPM. However, EPM continued with its strategy of refinancing the ‘bad’ debt. Following dispositions from the Energy Regulatory Commission, CREG, EPM subsidised up to 10 per cent of any debt amounting to five minimum salaries (about US\$ 1,355 in 2010).⁶⁵ Families could then split the remaining 90 per cent of the debt with a 36-month payment plan, and persons displaced by the war or injured as a result of natural disasters could be given 120 months to ‘pay off

⁵⁹ Comisión Reguladora de Energía (CREG), ‘Resolución número 067’ de 2004, Noviembre, *Diario Oficial* Nr. 45.707, pp. 2–3.

⁶⁰ *El Tiempo*, ‘Cómo utilizar la energía prepago’, 18 Jan. 2005.

⁶¹ *El Tiempo*, ‘EPM experimenta con energía prepago’, 21 Nov. 2004.

⁶² *El Tiempo*, ‘Así son los morosos de EPM’, 2 Dec. 2005.

⁶³ *Ibid.*

⁶⁴ Corte Constitucional de Colombia, ‘Sentencia C-278/07 de la Sala Plena’, 18 April 2007.

⁶⁵ Comisión Reguladora de Energía (CREG), ‘Resolución número 067’, *Diario Oficial* No. 45.707 (2004), pp. 2–3.

the debt'.⁶⁶ These financing plans came to constitute the core of the funding policy of EPM with respect to these disconnected persons.

The battle waged between the executive and the judiciary powers with regard to energy prepayment in Colombia brings one up-to-date with the kinds of tensions and contradictions that reflect what Boyer highlights as being the phenomenological, or Hegelian-Marxist, nature of energopower. Boyer argues that 'energopower makes sense now because of a series of events that have drawn our attention to tensions, contradictions even, between governmental institutions and aspirations and energetic forces and fuels'.⁶⁷ In Colombia, these tensions were connected to global ambitions and were also reflected locally. On the one hand, on the global level, the legislative and executive bodies worked to instigate reforms promoted by the World Bank, focusing on what Harvey refers to as 'full cost recovery' in public utility services.⁶⁸ On the other hand, national government aspirations to implement the prepaid system were challenged by the judiciary power who, under the CCC rulings, acted in response to *acciones de tutela* (writs for the protection of rights advanced by individuals against state authorities) lodged by legal groups to defend displaced women.

Tensions and contradictions continued to filter down to local level. In the 1990s, EPM was about to be privatised. However, the regional elites chose to keep the company in the public domain.⁶⁹ In 2005, Mayor Fajardo set the privatisation process for EPM's telephone networks in motion while, at the same time, was promoting 'payment of the historical debt towards the humblest' as a way of pacifying the city.⁷⁰ Regarding the contradictions and contraindications on 'the most humble' as reported by the City Office in May 2007, the city had 55,269 families' disconnected from electricity supply. EPM's aim was to reconnect 32,000 of these families in 2008.⁷¹ That year the programme connected 18,500 of them to the grid. By mid-2009, the programme had already brought in 37,522 families who expressed 91 per cent satisfaction with the service.⁷² By April 2010, EPM was reporting that they had installed prepaid energy meters with 42,819 families in the Medellín metropolitan area, benefiting some 280,000 people.⁷³ The goal for 2011 was to connect 88,000 of

⁶⁶ *El Tiempo*, 'Hace dos meses 2,993 usuarios residenciales tenían los servicios públicos suspendidos – pobreza desconecta a Medellín', 8 May 2010.

⁶⁷ Boyer, 'Energopower', pp. 326–7.

⁶⁸ Harvey, *The New Imperialism*, p. 159.

⁶⁹ *El Mundo*, Guillermo Maya Muñoz, 'Privatizar EPM, tarea pendiente', 16 March 2015.

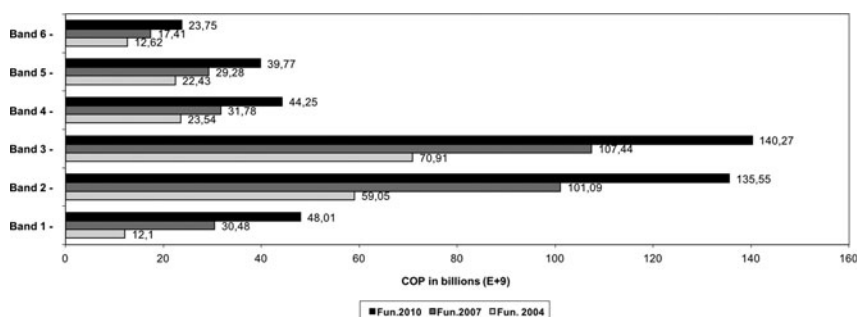
⁷⁰ Sergio Fajardo, 'Del miedo a la esperanza'. *XXIV Reunión de Consejeros del Tecnológico de Monterrey*, febrero 15, 16 y 17. Monterrey, Mexico, YouTube, 13 May 2009.

⁷¹ *Compromiso*, 'Energía prepago: la nueva forma de conectarse legal', 32 (Nov. 2007), p. 3.

⁷² *El Colombiano*, 'EPM lanza otro plan de energía prepago – "Todos conectados"', 6 June 2009.

⁷³ *El Tiempo*, 'La energía prepago de EPM atiende a 42 819 usuarios', 16 April 2010.

Figure 1. Growth of EPM Funds by Housing Band in 2004, 2007 and 2010



Source: Author's elaboration from the Domestic Public Services Single Information System (SUI), available at <http://www.sui.gov.co>.

the 95,000 families who were disconnected from service in Antioquia, 30,000 of whom resided in the Medellín administrative area.⁷⁴

As shown in Figure 1, payments made by those in Bands 1, 2 and 3, the poorest in 2010, constituted almost 80 per cent of total revenues and quadrupled the earnings of EPM.⁷⁵ According to the Single Domestic Public Services Information System (SUI), in 2004 the poorest in Band 1 paid similar amounts to those in Band 6. In 2010, the revenues from Band 1 were twice as much those in Band 6. It is important to note here that, although nearly half of the population of Medellín had no formal salaried income, with the prepayment solution, the entire population was forced to pay for EPM energy, regardless of their age or income.⁷⁶ With the 'inclusion' of 'the poor' in SPD payments, energopower became the most successful paradigm for the amassing of capital in the entire history of the city.

The Prepayment System and EPM Capitalisation

EPM capitalised on the full recovery of costs to promote its voracious colonisation of markets following three strategic actions between 2003 and 2011. In the first action, the company secured its dominant position in Colombia by buying up other utilities to set up the EPM Group. Since 2003, EPM has acquired other regional companies such as CHEC and EdeQ in the Colombian coffee belt. In 2009, EPM acquired a majority stake in CENS

⁷⁴ *El Colombiano*, 'Energía prepago llega a todo el departamento', 22 Nov. 2009.

⁷⁵ SUI (Sistema Único de Información de Servicios Públicos), *Energía – consulta de información facturación y recaudo EPM. 2004–2011*, available at <http://www.sui.gov.co/SUIAuth/portada.jsp?servicioPortada=4>.

⁷⁶ Alcaldía de Medellín, 'Encuesta Calidad de vida 2004. Población' (Alcaldía de Medellín, 2005).

and ESSA, which supplied utilities to the Santanderes, in north-east Colombia. With these acquisitions, EPM was supplying services to 12 million people, and reached the 25 per cent share ceiling of the national demand for energy.⁷⁷

In the second action, in 2005, EPM defined its mega goal for territorial expansion to be set to conduct 40 per cent of its activities outside Colombia.⁷⁸ To this end, EPM commenced a vertiginous campaign to purchase electricity companies in Central America, reaching dominance in that market in 2011. In Panama, the company built the 31.3 MW Bonyic hydroelectricity plant and, at the invitation of Panamanian president, prepared to launch itself into other fronts of infrastructural development, such as rural electrification, the provision of drinking water and the recovery of the Bay of Panama.⁷⁹ In late 2010, EPM signed a contract allowing it to acquire the Guatemala companies DECA II and EEGSA.⁸⁰ In January 2011, EPM acquired the Panama company ENSA and, at the same time, the El Salvador company DELSUR.⁸¹ With these acquisitions, EPM was placed to explore the geothermal potential of the region.⁸² In 2013, EPM expanded the geographical area of its operations in Chile, joining the Danish multinational Vestas in building the 'Los Cururos' wind farm.⁸³

In addition to establishing itself as a continental energy cluster such as a multi-utility service company, EPM also began to make inroads into aqueducts and water sanitation in Puerto Rico, Mexico and Chile.⁸⁴ Efforts made to integrate regional electricity grids resulted in a very promising outlook for EPM's continued expansion in the region.⁸⁵ With its geographical position as a bridge between the Andean Region and Central America, and the commissioning of two new hydroelectric plants, Porce III (660 MW) in 2011, and the Hidroituango power station (2400 MW), which will be the largest in

⁷⁷ *Boletín informativo EPM [EPM Information Bulletin]*, 'EPM logró la mayoría accionaria de las electrificadoras Santandereanas', 26 Feb. 2009.

⁷⁸ Furlong, 'Water and the Entrepreneurial City', p. 195.

⁷⁹ *El Colombiano*, 'Aguas y energía, retos de EPM en Panamá', 7 April 2010.

⁸⁰ 'EPM adquiere el negocio de distribución y comercialización de energía más grande y más sólido de Centroamérica', *Boletín informativo EPM*, 21 Oct. 2010. *Semana*, 'EPM compró la Empresa de Energía de Guatemala', 21 Oct. 2010.

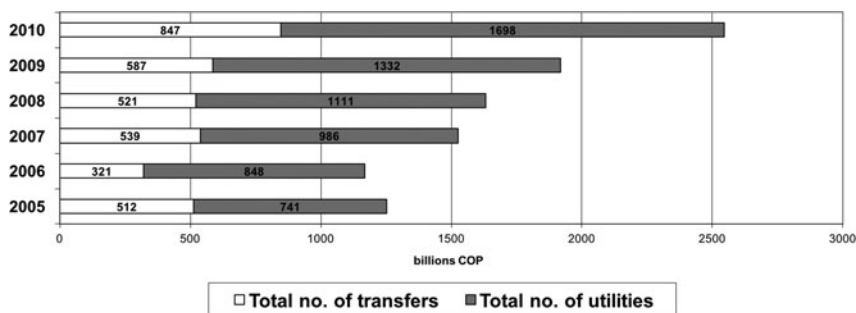
⁸¹ *El Espectador*, 'EPM adquiere negocios de electricidad en Panamá y El Salvador', 20 Jan. 2011.

⁸² *Prensa Libre*, 'Guatemala servirá a EPM para sondear el mercado de Centroamérica', 10 Oct. 2010.

⁸³ *Dinero*, 'EPM da pasos de multilatina', 24 April 2013.

⁸⁴ *El Colombiano*, 'EPM explora más negocios', 23 Feb. 2011. *El Colombiano*, 'EPM entra a México con filial de aguas residuales', 22 May 2013. Furlong, 'Water and the entrepreneurial city', p. 198. *Semana*, 'El multimillonario negocio de EPM', 23 April 2015.

⁸⁵ CECACIER (Comité Regional para Centro América y el Caribe de la Comisión de Integración Energética Regional), 'Noticias del sector eléctrico de Centroamérica y el Caribe', 1 Feb. 2011.

Figure 2. *EPM Savings Transferred to the City of Medellín*

Source: Author's elaboration from the Domestic Public Services Single Information System, available at <http://www.sui.gov.co>.

Colombia by the year 2018, the possibilities of expansion for the EPM Group began to mould it into a continental-sized operator.⁸⁶

In the third action, during the acquisition period between 2005 and 2010, EPM made financial transfers to the city totalling US\$ 1.9 billion (Figure 2). Based on these transfers the mayor financed the Social Urbanism project.

EPM and Social Urbanism

Between 1987 and 2003, 65,154 people, primarily males, were killed in Medellín.⁸⁷ The high toll of violent deaths led to a feminisation of the population; the percentage of women ranged between 53 and 58 per cent.⁸⁸ In the 2003 municipal elections, Sergio Fajardo, the son of one of the most powerful families in the GEA cement and construction industries was elected mayor. Fajardo won over the electorate with an innovative proposal for action against lethal violence, which he called Social Urbanism.⁸⁹ His proposal was to allocate about 40 per cent of the municipal budget to improving the educational and cultural infrastructure, replicating what is known as 'the Barcelona model', which advocates a form of area based intervention referred to by the municipal EDU as *Proyectos Urbanos Integrales* (Comprehensive Urban Projects, PUIs).^{90,91} The PUIs' focus was on concentrating the

⁸⁶ *El Espectador*, 'Hidroituango, en detalle', 31 Aug. 2012.

⁸⁷ Bedoya, *Violent Protection in Colombia*.

⁸⁸ Alcaldía de Medellín, 'Encuesta Calidad de vida', 2004. Población

⁸⁹ Hernández García, 'Slum Tourism', p. 44.

⁹⁰ Javier Monclús, 'The Barcelona Model: And an Original Formula? From "Reconstruction" to Strategic Urban Projects (1979–2004)', *Planning Perspectives*, 18: 4 (2003), pp. 399–421.

⁹¹ Echeverri and Orsini, 'Informality and Social Urban Planning in Medellín', p. 139. Hernández García, 'Slum Tourism', p. 47.

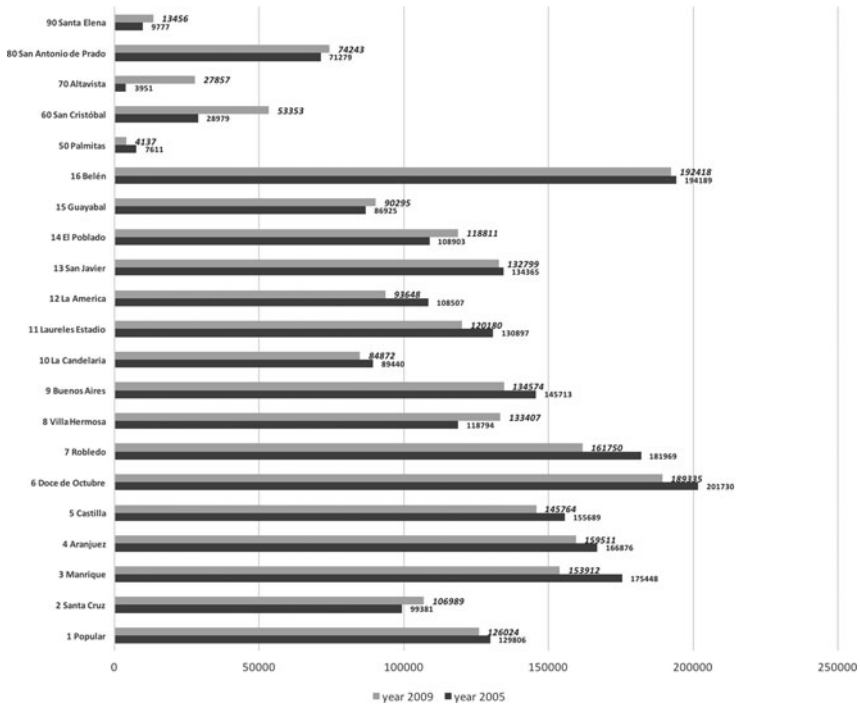
management capacity of all public utility companies in the city in the areas where levels of human development are at their lowest and the levels of violence are at their highest. Such a concentration of effort affords the administration the opportunity to propose a kind of urban acupuncture to temporarily numb the major flashpoints of violence. To achieve this goal, there had to be cooperation with the violent actors who, as some authors have suggested, were also interested in turning Medellín into an exemplar city.⁹² Following this power logic, the first PUIs were set up in conjunction with national agreements for the demobilisation of the right-wing paramilitary groups, and were located in the districts where these groups had the largest presence.⁹³ The PUIs put forward proposals for primary and secondary schools, library parks, innovative connectivity systems such as Metro Cable, and socially productive and city beautification projects.

The Social Urbanism plans discussed with regard to the EPM transfers were intended to reduce levels of violence and raise the human development index in the poorest areas of the city. However, even with the massive construction and investment, during the administrations of Sergio Fajardo (2004–07) and Alonso Salazar (2008–11), the percentage of people classified as poor did not decline (see Figure 3). Instead, there was a decrease, on the one hand, in the size of the official population in the municipality, which fell from 2.35 to 2.31 million, while on the other, the feminisation rate also declined from 54.44 to 52.91 per cent. In 2009, the total population of the city declined in 12 of the 16 districts. The size of the decrease ranged from 10,000 to 20,000 inhabitants in districts such as Castilla, 12 October, Buenos Aires, La América and Robledo. However, most of this decline was accounted for by the female population (see Figure 4), implying that the efforts being made to raise the human development index in the poorest areas coincided with the migration of women from these districts. As Figure 4 shows, in the low-income districts of Barrio Popular and San Javier, where the mayor implemented the first two PUIs, the decrease was remarkable. The female population also decreased in most central middle-class districts of the city, but increased in some middle and upper-class districts such as El Poblado and Guayabal or middle and lower-class districts such as Villa Hermosa, or Santa Cruz. On the other hand, working-class, low-income townships such as Alta Vista and San Cristóbal saw a large increase in their female population. The latter, perhaps, was a result of building the Ciudadela Nuevo Occidente proposed by the mayor

⁹² Francisco Gutiérrez Sanín, María T. Pinto, Juan C. Arenas, Tania Guzmán, María T. Gutiérrez, 'Politics and Security in Three Colombian Cities', *Cities and Fragile States*, Working Paper, 44 (2009), p. 12.

⁹³ José Samper, 'The Role of Urban Upgrading in Latin America as a Warfare Tool Against the "Slum Wars"', *Critical Planning*, 19: (2012), pp. 58–16, 63.

Figure 3. Variation in the Total Population of Medellín by district 2005, 2007



Source: Author's elaboration from Medellín's Planning Office, *Quality of Life Survey 2005*, *Quality of Life Survey 2009*.

in the area, to move displaced persons and households affected by fires, who were living in the city dump in Moravia, located near the city centre.⁹⁴

Prepayment Energy Meters as Behaviour Moulders

The mayor and the managing director of EPM were the motivational force behind the introduction of the prepayment energy system as a measure *benefiting* families by giving them control over their energy bills.⁹⁵ The following sections will address the issue of how women leaders on community action boards contested the redefinitions put forward by the EPM and the mayor.

Disconnected, displaced persons as 'bad debtors'

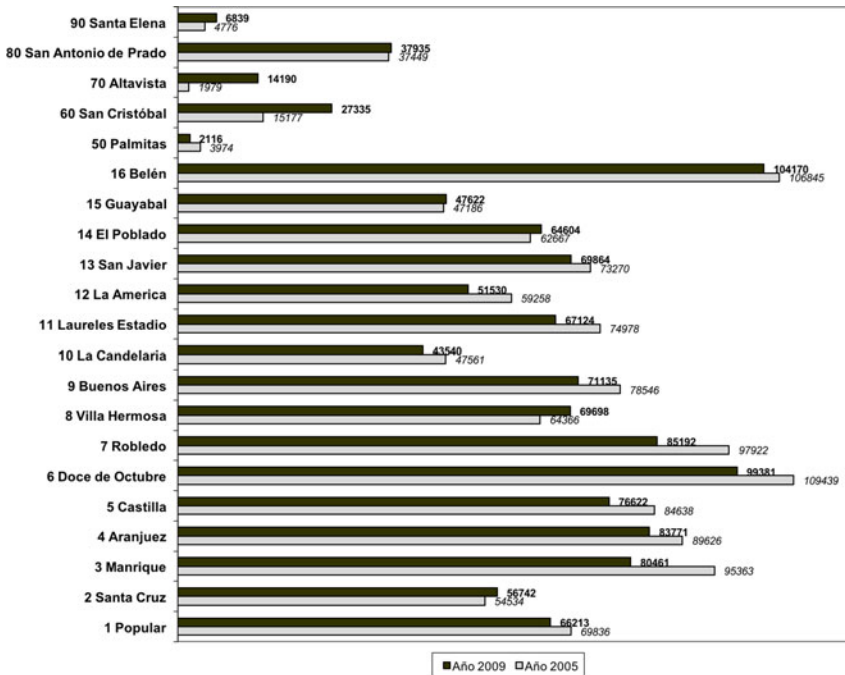
The first of the redefinitions the women objected to is the reference to 'bad debtors', which was often made in the press.⁹⁶ For the women interviewed,

⁹⁴ epm.com.co, 'Ciudadela Nuevo Occidente', *Camino al Barrio*, 21 June 2015.

⁹⁵ *El Mundo*, 'EPM masificará la energía prepago', 4 Oct. 2006.

⁹⁶ *Semana*, 'A oscuras', 1 Dec. 2002.

Figure 4. Variation in the Female Population by District 2005, 2007



Source: Author's elaboration from Medellín's Planning Office, *Quality of Life Survey 2005*, *Quality of Life Survey 2009*.

the 'bad debtors' were in particular, disconnected, displaced women. To illustrate this redefinition, some of them mentioned a study of example cases:

Aurora: This was a case of 20 displaced women who were disconnected for various reasons. For example, there were some women who wanted access to legal public services. However, it transpires that EPM imposed a large number of conditions on this, such as having a guarantor who had property that was not inherited.⁹⁷

This meant that to be able to make use of domestic public utility services, the women not only had to be property owners, but also had to have the support of another person who was financially solvent. Given these requirements, women leaders explained to EPM that the women in the study were heads of households, worked in the informal economy, lived in underserved barrios, as well as other details to describe the position of women displaced by war.

⁹⁷ Red de Mujeres Populares, group interview, March 2010.

Aurora: And they restored to us those rights to petition, with the reply that this is national policy, they could not intervene and that anyone with this problem was to 'start negotiation'. They have plans ... to refinance, which were, what we would call, 'a lukewarm, damp cloth', like trying to reconnect families, for example, with the prepayment card.⁹⁸

The national policy that EPM referred to was Law No. 812/2003.⁹⁹ Invitations to negotiate individually with EPM fall into the category Günel called disciplinary energy policy, in which both individuals and populations emerge as units of governance.¹⁰⁰ As will be seen, this energy policy paves the way for imposing new patterns of affordability and new forms of control.

'Improved quality of life' with improved affordability

As for new habits, in the context of the humanitarian crisis the country was facing, the CCC, in its rulings, demanded the universalisation of domestic public utility services. This was to defend women against the vulnerable situation in which the millions of displaced people found themselves. However, in Resolution 067 of 2004 of the CREG, the government claimed that:

In the event of there being users supplied through a prepayment marketing system, unavailability of the service as a result of non-payment *shall not be considered as suspension of service*.¹⁰¹

This resolution enabled companies such as EPM to register those who were *disconnected* or suspended from the right to a service to be recategorised as new *buyers* of a service to be supplied to them by these companies.

Romelia: From a political viewpoint, if we look at it statistically, there are no disconnected persons, the reason being that they're only disconnected because they haven't bought a card, if you get my meaning! If you have no power supply it is because you haven't bought a 1,000 pesos or a 2,000 pesos card. But in the structure aimed to enforce the right there's nothing about the disconnection of such a large number of families from public utilities.

Aurora: The prepayment card makes disconnected persons invisible.¹⁰²

With this ability to redefine the group, disconnected persons have disappeared statistically as subjects for special protection, becoming users to be assisted in accordance with the notion of the 'universalisation' of the service, which EPM defined in the following terms:

⁹⁸ *Ibid.*

⁹⁹ 'Ley 812 de 2003 por la cual se aprueba el plan nacional de desarrollo 2003–2006 hacia un estado comunitario', *Diario Oficial*, Nr. 45,231, 27 June 2003.

¹⁰⁰ Günel, 'Ergos', p. 362.

¹⁰¹ Comisión Reguladora de Energía (CREG), 'Resolución número 067', *Diario Oficial*, Nr. 45.707 (2004), pp. 2–3, author's own emphasis.

¹⁰² Red de Mujeres Populares, group interview, March 2010.

EPM understands the universalisation of the service as coverage and affordability. It thus prioritises the provision of access networks across the entire geographical area served, and then identifies the impact basic public utilities have on the Human Development Index indicators, particularly in terms of life expectancy and material well-being and, to a lesser extent, access to knowledge.¹⁰³

The article will now examine more deeply what is meant by affordability, material well-being and access to knowledge. With regard to *affordability*, or purchasing power, in accordance with the notion of ‘universality’, the human development index of disconnected persons was dependent on their access to available networks and to buy their services. Those who could not afford them were not necessarily disconnected from the ability to enjoy them. When families were informally connected, their consumption was, in fact, financed by the state and could be as high as, on average, 1,000 kWh/month.¹⁰⁴ With the implementation of prepayment energy, disconnected persons went from being ignored as subjects of social protection to being seen as new buyers. This formalisation by forced integration process is, at the same time, a form of privatisation, which David Harvey has argued as being a scheme for ‘full cost recovery’.¹⁰⁵

In terms of *material well-being*, the universalisation of affordability was promoted as an improvement in the well-being of disconnected persons, but the women had serious doubts in this regard:

Valentina: What [EPM] say is ... that ‘You have to have drinking water and a continuous supply of electricity, and that if you cannot pay for it, the solution is a prepayment account.’ But this turns out not to be the case. They are dismantling, by creating policies for us to believe this story. But at the end of the day, it isn’t true that things are created for the benefit of the community. Rather, the opposite – all our rights are being taken away from us.¹⁰⁶

As for having ‘access to knowledge’, at the time energy prepayment was introduced, the mayor had been strongly promoting his ‘Medellín, the best educated city’ strategy, as part of his rhetoric of ‘paying the historical debt to the most humble’.¹⁰⁷ The children from the poorest neighbourhoods could have access to the best education in terms of top quality schools and library parks built with participatory design methodologies.¹⁰⁸ This policy of universality, based on ‘coverage’ and ‘affordability’, was not promoted with the same participatory methodologies, despite its implementation being essential to the

¹⁰³ EPM, *Informe de Sostenibilidad social 2010*, p. 98.

¹⁰⁴ CIER (Comisión de Integración Energética Regional), ‘Evolución de potencia y energía entre 1980 y 2007’.

¹⁰⁵ Harvey, *The New Imperialism*, p. 159.

¹⁰⁶ Red de Mujeres Populares, group interview, March 2010.

¹⁰⁷ Fajardo, ‘Del miedo a la esperanza’, 17 May 2009.

¹⁰⁸ Echeverri and Orsini, ‘Informalidad y urbanismo social en Medellín’, p. 142; Hernández García, ‘Slum Tourism’, p. 49.

initiation of Social Urbanism projects. In this sense, the prepayment system required both forced inclusion and the submission of the population, as discussed in the final two sections of this article.

Forced inclusion as 'Social Urbanism'

Among those women who were leaders in the East Central districts of the city, some lacked the means to pay their overdue water and energy bills. One of them had already been disconnected. All of them had a history of having to pay high costs to have normal access to their water supply (water and sewage), which qualified them to be part of the city's Plan de Ordenamiento Territorial (Land Use Plan, POT). They established their homes during the 1980s as part of earlier waves of migrants and internally displaced people.

In 2004, the number of displaced persons in Medellín was estimated to be 120,000.¹⁰⁹ Of these, only 84,000 had been registered by the Office for Human Rights Issues.¹¹⁰ Between 2000 and 2004, a total of 3,686 displaced people settled in the neighbourhood of Santo Domingo Savio, 3,546 in Manrique, 3,379 in Moravia, and Barrio Popular, Buenos Aires, Enciso, Villatina, Santa Cruz and Aranjuez each received up to 3,000 people.¹¹¹

In 2009, the Office for Human Rights Issues in Medellín had already registered over 160,203 displaced people.¹¹² According to the CCC's rulings, this situation qualified families to be resettled in social housing schemes. Notwithstanding these requirements, in 2010 the mayor was still prioritising the building of structures for urban beautification, such as sports arenas and the athletes' village for the South American Games.¹¹³ In the east-central area of the city, the planning office had proposed a plan to have a household census. The census found that neighbourhoods where the women leaders lived were recorded in the POT as being 'illegals'. For Victoria, leader of one of the community action boards, delays connected with their actual living situation were constant:

We have now come to ask for a housing allowance because not long ago I asked for it on behalf of 25 families, and to my astonishment the answer was no, as they argued that we were not in the POT. And then I contacted them to say: 'What on earth are you talking about?! Then the work they were doing on Resolution 0065 (2010)

¹⁰⁹ *El Tiempo*, 'Atención de emergencia', 11 Aug. 2004.

¹¹⁰ Personería de Medellín (Medellín Office for Human Rights Issues), *Human Rights in Medellín*, 2005.

¹¹¹ Gloria Naranjo Giraldo, *Seguimiento y balance sobre el desplazamiento forzado, la población afectada, y las políticas públicas, Medellín 2004–2007* (University of Antioquia: Medellín, 2007), p. 53.

¹¹² Personería de Medellín, *Derechos humanos en Medellín 2005; Informe ejecutivo de Derechos Humanos en Medellín 2009*, p. 24.

¹¹³ *El Tiempo*, 'Los atractivos que construyó Medellín para convertirse en sede de Juegos Suramericanos', 17 March 2010.

with which we made the models for, where we said where we were going to put the bus terminal, well, there were so many works, how we wanted Medellín to be and how we dreamed our neighbourhoods would be.' We worked on those projects, and from that, a resolution was issued which was signed by the mayor. Then I said to them, 'how come you don't know that!? We're in the POT, we're not out of it – we're insiders.' I find it quite amazing, not having access to public utilities, the high risk that we run of streams bursting, which is what all the outlying neighbourhoods suffer from.¹¹⁴

Victoria's revelation stresses the contradictions and tensions that Boyer refers to between local government institutions, the energy companies and the real ambitions of Social Urbanism. The energy forces in EPM advanced with their offensive on implementing the prepayment energy system in the area. However, with the new Social Urbanism works, EDU, and the Municipal Office of Civic Culture sent out invitations to the participatory processes needed to get local support to start the PUI in the district. All these women were invited to take part in 'imaginary workshops', where people shared their dream vision of the future development of their neighbourhoods. At these workshops, the women proposed as first priority the drafting of a plan to resettle 3,500 families. But, as they have settled in what are designated as 'high-risk, irrecoverable' areas, the city's planning office persisted in excluding this population from the POT in order not to condone building in high-risk areas.

Subjugation to the prepayment system as 'consensus and solidarity'

All the redefinitions described so far are aimed at implementing prepayment energy in what Günel might describe as an ergo-political experiment aimed to regulate new consumption habits among disconnected people.¹¹⁵ The way women look at prepaid energy as ergo-politics designed to create submission in the population can now be considered.

Victoria: Things happen here and we continue to remain as poor as we were ... Imagine, we have nothing to pay for these services with. And EPM says, 'come on, we'll arrange a meeting and that prepayment meter set up for you'. ... and I tell my community: 'I won't agree to it.' Saying, 'install a prepayment meter for me' is like me saying to the state 'I submit.'

Matilde: And I'm giving up all my rights.

Angélica: It's quite strange.

Victoria: And what I say is that if I have the means to pay, I have rights.

Angélica: Or else (if I don't have the means to pay), I don't (have any rights).

Victoria: Then I stay out of it. That is what it's like to have a privatised service.¹¹⁶

¹¹⁴ Victoria, group interview, March 2010.

¹¹⁵ Günel, 'Ergos', pp. 361–2.

¹¹⁶ Group interview, Local Women Leaders, East Central Districts, March 2010. Own emphasis.

As the women explained, the prepayment system involved signing an individual contract to privatise access rights based on their affordability, indicating that *to submit* one was subjugating to the conditions unilaterally established by state energopower, represented by EPM and the city administration. Based on this analysis, barrio women could challenge EPM's interests, contest its character as 'public' utility and the prepayment system being called an aid to improve their real quality of life.

Angélica: Knowing that EPM is ours. It's presumably owned by the people – it's presumably owned by Medellín! So what is really the truth, what is the truth!? Is it ours or it is theirs by been privatised? So, what they want is for all of us to have prepayment energy. It's true! And we've now bought the electricity – we 'negotiated' for it. If we want electricity 'we have to sacrifice ourselves for it'. And if we don't [pay], 'we don't get it – that's all!' And on top of that it's so expensive! It is so for me. I don't personally think one cannot turn on a stove plate. It's just for light bulbs and what else? ... for the flat iron occasionally, and the TV. But you turn on a stove plate, and it eats up 5,000 pesos in one go! And who says it's much cheaper? It's not true. It really isn't true!

Elvia: Yes?

Angélica: That's totally wrong, because we have to use gas. What does that tell us, then? That we have to consume twice as much!

Elvia: Well, that's no help...¹¹⁷

Elvia is surprised by what Angélica comes out with, and then revises her alleged sympathy towards the energy prepayment system. This needs to be made clear to demonstrate the heterogeneous nature of the women's experiences and situations. Instead of helping, Angélica explained that EPM had made emphatic demands to supply energy to her, 'And if we don't [pay], we don't get it – that's that!', indicating that the nature of energy prepayment is a 'disciplinary energy policy'. As explained by Angélica the system was more expensive, which has been researched in other countries.¹¹⁸ Authors such as von Schnitzler have highlighted the nature of prepayment energy as being a technology aimed at introducing a new paradigm of social behaviour to South Africa.¹¹⁹ Installing it in Medellín could combine two characteristic aspects of the city: on the one hand, bolstering a new 'civic culture' aimed at both overcoming violence and increasing tax payments while, on the other, continuing the long history of social discipline that has characterised the domestic power elites in Antioquia.^{120,121}

In this sense, Celeste, for example, one of the barrio women's leaders was three months behind with her payments and part of the group of people

¹¹⁷ *Ibid.*

¹¹⁸ Telles Esteves et al., 'An Overview of Electricity Prepayment Experiences', pp. 715.

¹¹⁹ Von Schnitzler, 'Citizenship Prepaid', p. 913.

¹²⁰ Hernández García, 'Slum Tourism' p. 47.

¹²¹ Tubb, 'Narratives of Citizenship', p. 638.

who could sign an agreement with EPM to have access to electricity. After being suspended she was preparing to pay a penalty of one month of disconnection, while EPM installed a new prepaid meter for her. By signing the access agreement, Celeste was able to settle her debt, such that she would pay 10 per cent of her purchase for each prepayment card recharge to pay off her overdue bills. In addition, women explained, EPM invokes various disciplinary practices:

Angélica: The [EPM] plan is for everyone to have prepayment.

Celeste: ... For example, if you are in good standing with your utilities account, don't change to prepayment. You will have to allow for a delay to get connected, but not just one or two months; you may have to wait three months before you can have your electricity reconnected.

Carmen: I was looking forward to that programme ...

Victoria: But bear in mind what we sometimes don't realise is what EPM offers as good deals. What Celeste says at the beginning is true. We're given a time, but as we're unable to wait three months 'we're stuck', so we go back and get connected by ourselves. Then, when we go to EPM and say: 'We're going to finance it', then they reply, 'yes, well, but you got yourself stuck.' So! You'll need to pay a fine. And then they say, 'And as we're going to reconnect you, the connection's going to cost you extra'.

Matilde: Right! ¹²²

The way EPM has penalised families for having got themselves 'stuck' and reached consensus with them on their own electricity austerity has encouraged EPM to fully recover their costs while, at the same time, retaining the framework enabling energopower to continue to dominate their lives.

Conclusion

This article has discussed the introduction of prepayment energy through the performance of three essential tasks proposed for studying the framework for the domination of energopower in Medellín. First disconnected persons were part of the wave of mass displacement that forced the judiciary, through the CCC, to a state of emergency. In this situation, politicians and EPM have exercised their power to redefine displaced and disconnected persons as 'new buyers' of energy and other public utility services. Second, the article attempts to show how the introduction of the prepayment energy system coincided with the vertiginous capitalisation which allowed EPM to expand geographically and aggressively take over markets in Colombia, Central and South America and the Caribbean.¹²³ This capitalisation generated the resources with which the city's architects and builders financed the Social Urbanism model, a model that in just a few years resulted in the city being promoted

¹²² Group interview, Local Women Leaders, East Central Districts, March 2010.

¹²³ Furlong, 'Water and the Entrepreneurial City', p. 199.

as a paradigm of innovation and resilience for the Global South.¹²⁴ And third, the article has looked at prepayment energy as a ‘disciplinary energo-political’ experiment with the aim of establishing the basis for new affordability habits, such as persuading displaced and disconnected populations to subjugate to new forms of affordability of services to which they are entitled.¹²⁵

The women interviewed highlighted these three aspects holistically or divergently from with their *barrio* feminism. As elsewhere, women are the first to use electricity intensively in the home.¹²⁶ In this role, they are the first both to verify the effects of prepaid energy on daily life and to organise themselves to oppose the introduction of the new system of basic energopower services. Having mobilised, they decried the way the prepayment system renders disconnected and displaced persons invisible, ceasing to consider them as the subject of special protection, while elsewhere equipping them with a prepaid card which can be topped up according to need. In providing households with a prepaid metering device, their poverty issues went from being the responsibility of the state to being individual family responsibility. The prepayment system, acting as a disciplining micro-technology to control behaviour, also renders electricity austerity invisible, which affects women and young girls more severely than it does men and boys.¹²⁷

The women confirmed that the introduction of the prepayment meters moulded their behaviour to the point where the time they could devote to their social, economic and political activities became substantially limited. They also pointed out that the introduction of this system had been proposed without their involvement. In their opinion, EPM campaigns were about providing an ‘efficient service’ with ‘social inclusion’ based on ‘consensus and solidarity’. However, their experience testified to the fact that to implement the prepayment energy scheme, EPM had labelled disconnected persons as ‘bad debtors’, suspending their electricity supply for up to three months, and then imposing fines on them which, in turn, could increase if families become involved in ‘electricity fraud’, or ‘got stuck’ during the month of suspension, pending prepayment. On this carousel, disconnected and displaced persons were induced into a spiral of debt, forcing them to enter into submission or subjugation to unilateral demands defined by the company. By employing all these measures, EPM’s aim was to regulate services as a condition for settling the PUIs of Social Urbanism. Disconnected persons were seen both as citizens deprived of their rights, as per the CCC ruling, as well as subjects of social protection for whom the aim of Social Urbanism was to ‘pay off a historical debt’. At the same time, however, EPM also viewed them as ‘new

¹²⁴ Davis, *Urban Resilience in Situations of Chronic Violence*.

¹²⁵ Günel, ‘Ergos’, pp. 361–2.

¹²⁶ Annecke, ‘Still in the Shadows’, p. 292.

¹²⁷ Ruiters, ‘Contradictions in Municipal Services’, p. 499.

buyers' of services. As such, the prepayment energy system acquired an energo-political character marked by profound differences and contradictions. On the one hand, the aspirations of energy powers regulating energy use for disconnected and displaced persons handed out punishment to them if they defaulted on their obligations as new buyers of energy and other vital supplies. On the other, the local government authorities received part of the benefits from this policy to conduct a Social Urbanism designed to improve their living conditions.

In short, the prepayment energy system is part of a disciplinary energy policy to bring energopower to the growing displaced population in the cities of Colombia. The use of this energopower in Medellín is interesting owing to the fact that the city had become a platform to expand its prepayment systems primarily to Central America.

Spanish and Portuguese abstracts

Spanish abstract. Este artículo señala que el sistema prepago de energía puesto en operación en Medellín y en toda Colombia funcionó como una expresión de 'energopoder'; es decir, energía como forma de gobernar sociedades. El artículo utiliza archivos de prensa y estados de cuenta de la compañía, estadísticas oficiales y entrevistas grupales para mostrar cómo opera el energopoder en Medellín a lo largo de tres líneas: que Empresas Públicas de Medellín (EPM), la compañía de servicios públicos domiciliarios de la ciudad, describió a personas sin conexión y desplazadas como nuevos compradores de servicios de energía de prepago en vez de verlos como ciudadanos con derechos a estos servicios; que la implementación del sistema de energía prepago coincidió con la capitalización vertiginosa que permitió a la ciudad financiar su 'Urbanismo Social' y a EPM expandir operaciones a lo largo de Colombia y otros países en Latinoamérica; y, que la electricidad prepago como instrumento de energopoder sometió a poblaciones desconectadas y desplazadas a nuevas formas de acceso que obligó a las mujeres de barrios a entender y oponerse a sus métodos disciplinarios de dominación.

Spanish keywords: energopoder, Medellín, Colombia, energía, feminismo de Barrio, Urbanismo Social

Portuguese abstract. Este artigo defende que o sistema de energia pré-pago colocado em operação em Medellín e em outras áreas da Colômbia funcionou como uma expressão de 'energopoder', ou seja, energia como uma maneira de gobernar sociedades. O artigo utiliza arquivos da imprensa, declarações das empresas, estatísticas oficiais e entrevistas em grupo para demonstrar, em três linhas argumentativas, como o energopoder opera em Medellín: (1) a Empresas Públicas de Medellín, empresa de serviços públicos da cidade, encorajou pessoas sem energia conectada e desalojadas a serem novos consumidores de serviços de energia pré-paga, ao invés de cidadãos que gozam do direito a estes serviços; (2) a implementação do sistema de energia pré-paga coincidiu com a capitalização vertiginosa que permitiu que a cidade fundasse seu 'Urbanismo Social'

e a EPM expandisse operações ao redor da Colômbia e outros países latino-americanos; e (3) que a energia pré-paga como ferramenta de energopoder subjugou populações desconectadas e desalojadas a novas formas de acesso, fazendo com que as mulheres do bairro passassem a compreender esse e os outros métodos de dominação disciplinadora.

Portuguese keywords: energopoder, Medellín, Colômbia, energia, feminismo de bairro, Urbanismo Social