

# Russia's Power Sector Reform: Creating Robust Competition or a Potemkin Market\*

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## Implementation issues

The complexity of the reform plan and the lengthy period over which it is to be implemented reflect the authorities' determination to proceed with caution and to draw lessons from the experience of power-sector liberalisation elsewhere. The legislation also leaves the government to take a large number of key decisions at a later stage. These include the timing and extent of liberalisation, the rules governing access to the grid, the operation of the market and the prevention of discrimination. The '5+5' plan likewise leaves many issues open, including the specific mechanisms for spinning off the wholesale gencos and creating the territorial gencos. The open-ended character of the laws and the restructuring plan should allow the authorities freedom to adjust the reform as it is rolled out, which may well be necessary in implementing such a complex, far-reaching reform. However, the complexity of the plan and the length of the transition raise the risk that the aims of the reform could be subverted, or at least substantially altered, as a result of special-interest lobbying during the implementation phase. Such lobbying has been evident since the reform process was launched in 2001 and shows no sign of abating.

The risk that special-interest lobbying will distort the reform is all the greater in view of the fact that the asset restructuring and the creation of the liberalised sector's architecture are proceeding in parallel. It would, in principle, have been preferable to create a new regulatory framework and market institutions *before* privatising UES's assets. The value of assets to be allocated as UES is broken up will depend, in many cases, on the institutions and rules that are eventually cre-

ated to govern the market. Participants in asset-control contests thus have powerful incentives to lobby for specific outcomes with respect to questions of regulatory reform and market design. One of the most important developments in this regard was the drive by certain Russian industrial interests to acquire large blocs of UES shares in anticipation of restructuring. Some industrial groupings had already acquired large stakes in selected energos. By early 2004, Russian legal entities held around 32% of UES, up from 5% in mid-2000.

Russian industry's move into UES shares reflected growing confidence that electricity reform was, after much delay, to proceed. Also encouraging was the fact that these powerful groupings had to buy large stakes in UES in order to shape the process. Initially, they had apparently hoped to buy the specific assets they wanted for cash, outside of the framework of the restructuring plan. Only after such sales were banned in September 2002 did the industrialists embark on their share-buying spree. However, their behaviour also suggests a significant

disjuncture between the government's plans and private-sector expectations about the results of reform. Many, if not most, of the groupings appear to be chiefly concerned with securing key assets upstream or downstream of their core businesses in order to protect

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themselves as the reform unfolds.<sup>1</sup> This suggests a high degree of confidence that reform will go forward but little faith that the outcome will be a well functioning market. It may, indeed, reflect the hopes of some actors that the market will not function well at all, creating opportunities for well positioned players to exercise market power.

### Asset restructuring

Though very detailed, the '5+5' plan does not specify the mechanisms for allocating UES and energo assets in the course of restructuring. These are still to be finalised. It was initially planned that all UES shareholders would simply be allocated shares in all successor entities proportional to their stakes in UES. However, the *pro rata* approach, although arguably the surest way to protect minority shareholders' rights, would have left small shareholders with a large number of small stakes in successor companies. Given persistent concerns about corporate governance, this could have left them even more vulnerable than before. Moreover, while the law requires strict separation of generation and transmission activities — no UES-successor entity may own both generation and transmission assets except in specified circumstances — application of the *pro rata* principle would give all the successor entities exactly the same ownership in exactly the same proportions, at least initially. Also relevant is the state's desire to increase its stakes in the FSK and the SO while reducing its ownership of generating capacity; most private investors wish to do the opposite. This is particularly true of the major Russian industrial groupings, which lobbied aggressively for a relaxation of the *pro rata* principle after they began moving into UES shares in late 2002.

These concerns prompted UES and the government to move towards a two-stage restructuring procedure involving both UES shares and cash bids. Under such a scheme, UES shareholders would have the right to exchange UES shares for equal shares in the successor entities created by the restructuring. Shareholdings in the wholesale

gencos that were not taken up on a *pro rata* basis, including government stakes, would then be sold by auction, with a mix of

UES shares and cash used for bidding (some stakes might be reserved for 'shares-only' bidding). Thus, investors who did not exercise their *pro rata* right in phase one would, in phase two, be able to use their UES shares to acquire specific assets. This would enable non-shareholders to participate in the auctions via cash bids, something the authorities favour, on the grounds that restricting the auctions to shareholders could lead to the creation of an electricity oligopoly dominated by a few large industrial groupings. Cash bidders could be made to pay a significant premium to participate, based perhaps on the average UES share price for some period before the auctions; in this way, UES shareholders' interests would be protected.

Such a two-stage restructuring would enable the government to raise its stake in the FSK from 52% (its *pro rata* share) to the 75%+1 share it is required by law to secure. It would also facilitate the increase in the state's stake in the System Operator (SO). By encouraging the diversification of ownership of the wholesale gencos, it might also foster competition in the sector and make the vertical separation required by law more meaningful. However, the state's stake in all residual UES assets would increase as a result of such auctions. Thus, the state would end up with many assets that it does not want to own, including inefficient, second-tier generating assets that investors find unattractive and that the authorities might feel political and social pressure to run. This would represent a potential conflict of interest, given the state's role in controlling dispatch via the SO.

As of this writing, the issue remains unresolved. A decision was to have been taken in early 2004, but the government repeatedly postponed consideration of the matter by the UES board until late June, when the prime minister announced that a final decision would be taken at a government meeting in December. The announcement of such a long delay unsettled the market and raised doubts about the future of the entire reform process. While government officials were at pains to stress that the reform would proceed according to plan (albeit on a revised timetable), the length of the delay, coupled with the statement that the auction mechanism would be selected only after a thorough review of the results of reform to date, raised the prospect of more substantial changes.<sup>2</sup> The delay also risked creating legal difficulties for the government, because under the electricity legislation,

<sup>1</sup> Most industries are, of course, 'downstream' of electricity and thus are concerned with ensuring access to low-cost supplies; however, some producers of coal, gas and other fuels are also interested in securing stakes in electricity generators.

<sup>2</sup> See, e.g., Vedomosti, 28 June 2004; Moscow Times, 28 June 2004; Prime-Tass, 12 July 2004.

the ban on cross ownership of generation and transmission assets will come into force from 1 January 2005. In reality, no auctions are likely before late 2005 or early 2006.

Likewise, there is uncertainty about the restructuring of the energos into territorial gencos and inter-regional distribution companies. The '5+5' plan anticipates a three-stage process for breaking up the energos and then merging their generating assets into the new companies. This could take as long as four years. Long delays between the unbundling of the energos and their 'rebundling' into new companies would represent a significant corporate governance risk. The former energos would be replaced by hundreds of smaller companies, whose shares would be illiquid and whose managers would be more difficult for shareholders (including the state) to monitor. A lengthy transition phase could thus offer insiders significant opportunities for asset-stripping (Renaissance Capital 2003:2-5). It now appears that the territorial gencos, at least, will be created by means of a somewhat faster 'co-creation' process. Whatever restructuring option is chosen, it will be important to keep the transition as short as is possible while still respecting shareholders' rights. This is true of the formation of wholesale gencos and inter-regional distribution companies as well. A transparent and well managed restructuring process would, moreover, build investor confidence, particularly among potential foreign investors, who may fear that well connected business groups will manipulate the process and dominate the restructured sector.

One should not exaggerate the risk that the restructuring will degenerate into an uncontrolled asset-grab comparable to the shares-for-loans auctions of the 1990s, as some have suggested. However, there will probably be attempts at less blatant insider deals and procedural manipulations. The best way to limit the scope for abuse, whatever the specifics of the final arrangements for restructuring UES and the energos, will be to ensure that asset disposal procedures are standardised, transparent and relatively simple. Complexity and opacity create opportunities for corruption, while any exceptional or one-off deals may appear abusive even if they are not. Transparency with respect to the disclosure of beneficial ownership, insiders' dealings and relationships among parties will be particularly important in heading off improper manipulation of restructuring procedures.<sup>3</sup> Nevertheless, while preventing abusive

practices will be important, their significance should not be overstated. Resolving the ownership issue is likely to be beneficial in itself. Other Russian industrial sectors have begun to see a recovery of investment and restructuring only once asset-control contests were largely settled. Electricity is likely to be no different, provided the market rules are well designed and the worst abuses of local monopoly and other forms of market power are curtailed.

### Creating markets: generation and supply

The reform plans show a healthy awareness of the need to structure markets in such a way as to facilitate competition. Thus, the six thermal wholesale gencos are all to be of roughly similar size (in terms of installed capacity), fuel mix and age of fixed assets. The wholesale gencos will also be geographically spread, so as to avoid concentrations in particular markets. The planned territorial gencos will vary more in size (owing to the decision to structure them on the basis of groups of contiguous regions), but they, too, have been organised so as to avoid excessive concentrations of market power in particular price zones. Moreover, the government remains determined to ensure that the UES restructuring does not result in an oligopolistic market structure. Finally, the law stipulates that no legal entity, or group of related entities, may own in excess of 35% of the total installed generation capacity in any given wholesale price zone. Such entities may be subject to price regulation or forced unbundling ('Ob elektroenergetike' 2003, art. 25.6).

Even so, the authorities may need to take further steps to ensure adequate competition in regional markets.

A Herfindahl-Hirschman Index (HHI) analysis based on the planned structure of the wholesale gencos suggests that the market as a whole would be relatively diversified, with an HHI index score of about 500.<sup>4</sup> However, such estimates cannot take full account of the mar-

<sup>3</sup> In 2003, UES adopted a rule requiring company insiders to seek approval for transactions involving UES shares. In April 2004, however, the company decided instead to publish data on insiders' transactions in UES shares on a quarterly basis, having concluded that the original rule was ineffective. Significantly, the company linked the issue explicitly with the problem of related-party transactions. While there remain grounds for concern, the latest step is a welcome development. See Vedomosti, 29 April 2004.

<sup>4</sup> The Herfindahl-Hirschman Index is a commonly accepted measure of market concentration. It is calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers. Markets in which the HHI is above 1000 are regarded as moderately concentrated, and those in which it exceeds 1800 points are considered to be concentrated.

ket power that may arise as a result of non-transparent cross-ownership, which is a real possibility in the Russian case. Moreover, standard HHI analysis can understate potential market power in electricity markets, owing to the peculiar physical properties of electricity as a commodity. It cannot be stored economically (apart from water stored in reservoirs); supply and demand must balance at all times; and demand tends to be inelastic in the very short term, as most consumers lack the information or the means to react rapidly to changes in price. In addition, one must consider the binding nature of generator and network capacity constraints when they emerge; the physics of electricity flows, which follow the path of least resistance rather than contract paths; and the potentially catastrophic impact of physical failures at a single point for system reliability. These characteristics can sometimes allow relatively small players to exercise significant market power in particular circumstances. Moreover, HHI indicators deteriorate considerably when the plans are considered from a regional perspective, suggesting potentially large market concentration in the Southern and Volga regions, as well as in the North West. This points to the importance of promoting the development of competition through inter-regional trade, which in turn will depend on the strength of the transmission network linking major centres of generation and load.<sup>5</sup>

Yet for all the authorities' concern about the dangers of private oligopoly, the state's own rather large role in power generation may be the greatest threat to competition. State ownership of nuclear plants matters little, as these represent base load and do not have much impact on price-formation. Many of the state's other generating assets will be relatively high-cost producers anyway, so they should pose a problem only if they are given preference in dispatch for political or social reasons. The state's control of roughly 40GW of hydroelectric capacity is another matter. Hydro has the lowest short-run marginal costs of any form of non-nuclear generation. Therefore, it cannot directly set the marginal price. However, it could be used indirectly to

manage the marginal price. By strategically bidding in hydro capacity, the authorities could displace higher-cost bidders from the order of dispatch,

thus lowering the wholesale price. This could prove extremely effective in countering the exercise of market power by private producers. However, if used too aggressively, this tactic could depress prices overall and thus discourage needed investment in new capacity.

The temptation to use hydro to hold down price rises is thus a dangerous one and it would be preferable if managers of the three hydro companies not subordinated to the SO (assuming that there are three such companies in the end) were given the incentives and the freedom to operate on a sound commercial basis rather than to act as quasi-regulatory instruments. Unfortunately, it appears increasingly likely that the government will indeed opt to amend the plan and create a single genco based on all the hydro plants, and this proposal has reinforced concerns that those in control of hydro capacity will indeed succumb to the temptation to manipulate the market (Gurova and Rubchenko 2004:24). Over the longer term, the privatisation of the state's remaining generation assets would reduce both the temptation and the capacity of the state to manage the market in this way.

Plans for a capacity mechanism raise similar risks. Payments intended to enhance security of supply by ensuring the availability of sufficient capacity are a form of insurance against possible market failure — or, in the Russian case, of reinsurance, since the authorities will own enough generating capacity to ensure that reserve margins remain relatively high. The problem is that, in the absence of clear criteria concerning when such capacity should be dispatched, the SO may dispatch it too readily, thereby distorting the price signals sent by the market and the incentives for investment in new capacity.<sup>6</sup> Capacity payments may also encourage producers to 'game' the system by manipulating their availability declarations to increase the capacity payment. By providing revenue to incumbent generators regardless of whether or not they are selling electricity, capacity payments may also impede new entries (IEA 2001:96).

The design of the capacity mechanism, therefore, will have to take account of the need to minimise any distortion of investment incentives or market operation. It appears that the government plans to specify the nature of the capacity arrangements in the course of 2005 (*Renaissance Capital Morning Monitor*, 21 July 2004).

<sup>5</sup> I am grateful to Doug Cooke of the IEA for both the HHI estimates and the analysis of its limitations in respect of the electricity markets.

<sup>6</sup> The IEA (2004:3) raises this concern in conjunction with Sweden's transitional capacity mechanism.

It is critical in this context to bear in mind the physical properties of electricity discussed above. One of the implications of the peculiar properties of electricity as a commodity is that a competitive, smoothly functioning electricity market is likely to be much more volatile than most commodity markets. While market failures and situations involving market power can and sometimes do occur, this volatility is not necessarily a problem. Indeed, it can be a crucial source of information about where constraints are emerging and what new investment may be needed. If a liberalised sector is to function efficiently, therefore, the authorities must be prepared to tolerate volatility, even if this sometimes means accepting sharp price spikes. This implies a need for the state to refrain from using its generating assets or regulatory tools such as price caps, for which the legislation provides, to counter the signals the market is sending. In the initial stages of liberalisation, such restraint may not be difficult. Prices may very well fall after competition is introduced. After all, there is excess capacity in the system, even at peak demand, and there is also tremendous scope for improved productivity, as current regulatory arrangements do not allow for the most economically efficient dispatch. However, prices will eventually have to rise, and rise substantially, to reach levels that make investment in generating capacity attractive. This J-curve price path, involving an initial drop and later price rises, has been observed in other liberalised electricity markets.<sup>7</sup> It is when the curve begins to rise, then, that restraint on the part of the authorities will be needed to avoid artificially depressing prices and muting the market's signals about the need for investment.

A credible *ex ante* commitment to such restraint is likely to be essential if the authorities are serious about attracting private — particularly foreign — investment to the sector. Investors will be reluctant to enter the market if they fear heavy-handed state intervention to hold down prices. Indeed, they will be understandably wary of entering any market in which regulatory authority, control of the infrastructure and the largest share of generating capacity are all concentrated in the hands of the state, particularly in the Russian context, of a state that has mixed record, at best, when it comes to policy consistency and to keeping its own promises. An early and credible commitment by the state to withdraw from the generation business after the transition is over would send a reassuring signal to investors. Clarification of the rules regarding

price caps could be a further important signal, if it were made clear they were to be set at very high levels and only to be imposed in very exceptional circumstances. However, such signalling is unlikely to be enough, given that the credibility of such promises would be open to doubt. The creation of a strong, independent regulatory authority, with a clear mandate and clear rules, would greatly reduce the need for the authorities to send such signals of their commitment to refrain from heavy-handed intervention in the market. In the absence of such a regulator, it will be difficult for the authorities to convince investors that the legal and regulatory framework now being put in place will be stable. Investors may fear that, once they are committed, they could be subject to *ex post* exploitation as a result of later revision of that framework.

Electricity supply is to become a competitive business under the reform, with supply companies acting on behalf of consumers too small to access the wholesale market themselves. In an effort to protect the population during the early stages of reform, the legislation provides for the designation of 'guaranteeing suppliers', which will operate within specified regional markets and which will be able to purchase up to 35% of power produced by generators at regulated prices for re-sale to households. These regulated tariffs will be linked to market-determined wholesale prices and the gap between the two is to decline over time. Guaranteeing suppliers must serve any other customer who applies to them but such customers will pay the wholesale price plus a regulated supply fee. There may be multiple guaranteeing suppliers within one subject of the federation, but their service areas may not overlap nor may they extend across the boundaries between subjects of the federation. The likelihood is that there will be one guaranteeing supplier in each federal subject and that this will probably be the supply company spun off from the local *energo*.

These arrangements raise the risk that guaranteeing suppliers may, with the implicit support of regional authorities (which are likely to own large stakes in them), establish *de facto* regional monopolies. Moreover, the creation of special purpose retail companies to serve small consumers entails a risk that such suppliers will become relatively inflexible and moribund, with

<sup>7</sup> On the Scandinavian experience, in particular, see Sillantaka (2002:7-10); on Australia, Germany, the United States and New Zealand, see IEA (2001:50-2).

little incentive to innovate or to pass through any benefits of reform to small consumers.

This could complicate any future introduction of customer choice and entrench the need for price regulation and vesting arrangements. Furthermore, the legislation does not prevent generators from owning supply companies. This could allow for some efficiencies but, given that the purpose of the supply companies is to act on behalf of consumers vis-a-vis producers, it could also create conflicts of interest. As long as consumers have a real choice of suppliers, this should not be a concern, but there is a risk that generators may use ownership of supply companies to suppress competition in local markets.

### **Reforming regulation: transmission and distribution**

The efficiency of the wholesale market will depend in large measure on the ability of the grid to support competition. Despite the age of many of the lines, the high-voltage grid appears to be in a reasonable condition overall, and UES and the FSK are trying to tackle the bottlenecks and weaknesses that do exist. Overall, the transmission system still has a lot of excess capacity, although some further de-bottlenecking will be required if it is to support a liberalised wholesale market. Energy Ministry officials have suggested that there is an urgent need to invest up to \$2.3bln in new grid capacity in the very near term, but independent analysts take a more sanguine view. Existing assets are in many cases used very inefficiently,<sup>8</sup> and some observers overestimate how well the grid must work for the market to function properly. The critical question, however, is how decisions on the development of the grid will be made after the transition is over. Patterns of production and consumption are likely to change radically after liberalisation, and there will be a need not only to reassess the grid's investment needs but also to determine where local generation might be more efficient than new power lines. There is plenty of scope for lobbying and conflict over such issues, since the value of generating assets can be hugely affected by the grid investments that are (or are not) undertaken.

Much depends on the mechanisms for price formation employed in the liber-

alised market. The early stages are likely to be characterised by a reliance on zonal pricing, in which prices are set for each market zone and thus average the cost of congestion in those nodes. As a transitional approach, this makes sense. It will give a better reflection of costs and constraints than most other forms of tariff, apart from nodal pricing, which would be more of a challenge to implement, especially with market participants who have little experience of managing the related risks. Over the longer term, however, a shift to nodal pricing could yield significant benefits in terms of more efficient operation of the market in the short term and more efficient investment over time. Because they reflect the relative scarcity of transmission capacity at every point in the grid, nodal prices provide the clearest possible signals as to where constraints are emerging. They thus provide incentives for appropriately located investment (IEA 2001: 105-110). Unless and until nodal pricing is introduced, there will be considerable scope for disagreement about the most economically efficient means of resolving transmission constraints. This is why the arrangements for strategic decision-making with respect to the levels and direction of grid investment over the longer term are so important.

Presently, the FSK appears to be in charge of formulating proposals for grid investment. The maintenance programme is not controversial and a certain amount of de-bottlenecking is under way. There are still some major cost differentials that could be slashed by building a few new lines or upgrading existing ones. There are also some nationally mandated investments in new interconnections in train.<sup>9</sup> If the FSK continues to make such decisions, however, it may favour grid-based solutions in circumstances where new generation capacity, or even demand-side solutions, represent more efficient means of resolving constraints. It might well make sense to organise the investment decision-making process around the SO. The SO probably could not handle the task on its own, but it will possess the requisite information on which to base decisions and it will not face the conflicts of interest that will confront the other market participants. Given an appropriately framed public-service mandate, a special-purpose organ involving the SO could take charge of planning grid investments. Alternatively, it could be given a broader authority to resolve transmission constraints, allowing it to opt for the most cost-effective solutions possible. Whatever body is

<sup>8</sup> Mosenergo, for example, has significant of high-voltage assets that are not integrated into the grid and are currently used for distribution.

<sup>9</sup> See IEA (2002:200) and 'Energeticheskaya strategiya' (2003:36).

charged with this strategic planning role, its mandate should be carefully formulated to ensure that it pursues efficient solutions that meet the needs of the market as a whole. It should also be required to consult widely with interested state bodies and private-sector parties and to act transparently in respect of its planning role. Ultimately, however, a shift to nodal pricing will still offer the best prospects for ensuring economically efficient decisions with respect to infrastructure investment.

The future of the low-voltage grid (LVG) is highly uncertain. Current plans call for spinning LVG assets off from the energos and then re-merging them into five inter-regional distribution companies. The mechanisms for doing this have yet to be clarified. It is not at all clear whether these inter-regional distribution companies will attract the necessary investment. The LVG is in very bad shape, and the new companies are likely to have dispersed ownership and fragmented management structures. Given that they are to be a regulated natural monopoly, there would seem to be an argument for a process that parallels the UES restructuring: the state could trade stakes in energy generating capacity for increased stakes in the LVG, which would then be overwhelmingly state-owned. Such a solution would facilitate its integration with the high-voltage grid for purposes of both investment and operation (Renaissance Capital 2003:2). It would also reduce the danger of vertical reintegration via the back door, with many of the same shareholders owning large stakes in both distribution companies and generating companies. Though it has so far attracted little attention, the fate of the LVG is at least as important for ordinary consumers as the high-voltage grid. Moreover, with the current plans, the regions are to have freedom to set distribution tariffs, within maxima and minima defined by the FST. The regions may face incentives to keep tariffs as low as possible, even at the risk of under-investment, because the distribution companies' revenues, raised by higher tariffs on their consumers, might well be used to finance investment in other provinces.

## Conclusion

The implementation of Russia's energy reform is complicated by a number of factors, including the sheer technical complexity of the enterprise; the fact that the asset restructuring is to proceed in parallel with the creation of new market institutions and a new regulatory framework; the

length of the implementation phase; and the large number of critical issues to be resolved by the government at a later (often indeterminate) time. Unfortunately, these factors cannot but stimulate further efforts by powerful lobbies interested in stopping or distorting the reform. Consequently, there is a real danger that competition in the reformed sector will be weak. There would appear to be two main dangers to bear in mind with respect to the degree of competition in the post-reform sector.

The first, of which the authorities are clearly aware, is the danger of an 'oligarchic oligopoly'. There is a genuine risk that the asset allocation process may give rise to private oligopoly or local monopolies. Moreover, as we shall see below, the behavior of many private players suggests that they fear (or hope) that the asset allocation process will not create a competitive market structure. The second danger is far less widely debated but no less serious: that the state itself will restrict the scope for competition in the sector. In an effort to limit the risks arising from the reform and to prevent the exercise of market power by private-sector interests, the government has built into the reform a number of mechanisms which could allow it effectively to 'manage' the market in ways that would run counter to the aims of liberalization. The result could be a 'Potemkin market' — a formally liberalized sector that is in reality managed by the heavy hand of the state.

It is difficult to exaggerate the importance of ensuring that the market-ized segments of the sector are characterised by robust competition based on economically meaningful prices. If the post-reform sector is characterised by local monopoly or the exercise of market power, most of the reform's objectives will be frustrated. Indeed, a well regulated, vertically integrated monopoly might be preferable to an uncompetitive market. (This is not an argument for the status quo: Russia's currently monopoly is neither effectively integrated nor well regulated.) This makes it essential that the break-up of UES result in a market structure that will sustain competition, and that the market rules be transparent, stable and effectively enforced. It is critical, too, that the authorities themselves allow the market to operate, even if this means tolerating higher electricity prices than they might like at any given point in time.

Effective regulation will also be essential to the reform's success. A stable legal and regulatory

framework, with predictable policies on such issues as tariff regulation and access to the grid, is crucial if the sector is to attract investment over the long term, which is one of the stated goals of the reform.

However, it will be difficult, within the structures currently envisaged, for the government to make a credible commitment to the stability of the arrangements being put in place. The legislation is vague in many areas and leaves the government tremendous discretion in the field of electricity regulation. The absence from the entire scheme of plans for a strong, independent regulator must give cause for concern. The regulators that currently exist are under-resourced and it is not clear that this will change as the reform unfolds. Unless the reform is amended, it will be difficult for the authorities to convince other agents of the stability of the new rules and structures, let alone of

their own readiness to allow the market to function freely.

The evolution of the reform during 2003-04 illustrated well the seriousness of the pitfalls outlined above. The contest over whether and how to privatise power sector assets led to repeated delays and much public conflict. While delay need not be fatal to the reform, the government's evident vacillation with respect to key elements of the reform served to undermine confidence in the reform as a whole and, in particular, in the authorities' commitment to the arrangements set out in the reform legislation and the '5+5' plan. By mid-2004, even members of the government were acknowledging that foreign investors, in particular, were backing away from planned projects in Russia on account of uncertainty about the direction and pace of reform.<sup>10</sup> The corporate restructuring of RAO UES was proceeding at a remarkable pace, but the governmental side of the reform seemed to have stalled. If investors and other market participants conclude that the government is no longer really committed to the reform, then opposition to it is likely to grow and confidence to wane.

<sup>10</sup> See Deputy Minister of Economic Development and Trade Andrei Sharonov's comments on E.ON's withdrawal from a joint project with UES; Moscow Times, 22 June 2004.

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