

Should We Try a Leasing Formula?

By Christopher R. Head

This article is the last in a special six-part series examining technically-related contractual issues that can arise during development of privately financed hydroelectric projects.

This article proposes a new way of approaching the Concession Agreement.

For the last article of this series, I want to step back and look at the wider picture, specifically at the arrangements made when governments grant private hydro concessions. In any deal of this sort, there may only be two parties involved — the public sector and its private counterpart. However, there is an almost unlimited permutation of ways in which they can interact with each other.

Personally, I am not convinced that we have found the right formula yet. If the model was working well, we would have many more privately financed hydro schemes than is actually the case. In fact, very few medium-to-large hydropower projects have been successfully financed as independent power producers (IPPs). And, for those that have reached financial closure, it has been a long and costly process.

Current practice is for private hydro to mirror the thermal IPP model, under which a private company develops, owns, and operates the power station. The only real difference is that for hydro there is usually an obligation to transfer the project back to the government at the end of the concession period. This has been dropped from most thermal power agreements — for the simple reason that an old thermal station is a liability rather than an asset.

Traditionally, hydro schemes were developed and owned by the utility, and it did not really matter whether the utility was public or private. The important point was the utility assumed the risks associated with the new scheme, because it was able to absorb them. Cost overruns that might be disastrous on an individual project basis have a much smaller impact when viewed as part of the portfolio of projects.

Unfortunately, this approach is not consistent with the way IPP projects are developed under non-recourse financing, which requires all risks to be ring-fenced within the one project. If we look at the two systems, the contrast is marked. In the one instance, the private sector is in total control until it eventually

transfers ownership back to the state, whereas under the traditional route private companies play a much more subservient role. In cash flow terms, the difference lies between the utility effectively paying for the project in advance, as opposed to paying progressively as power is delivered. The IPP route relieves the utility of the funding problem, but the ultimate price of electricity is likely to be higher due to the additional costs of private financing.

Looking at these polarized options prompts me to ask whether there is a better solution that lies somewhere between the extremes. Perhaps we need to start again, by re-examining the fundamental relationship between the parties to the Concession Agreement.

It is worth restating the objective that is driving the worldwide privatization process. Put simply, it is to relieve the public purse of the burden of financing new infrastructure, and to introduce the efficiencies of the private sector through pressure of competition. Any alternative concession arrangements will clearly have to reflect these same aims.

In the United Kingdom, the government is providing new public infrastructure through the Private Finance Initiative. Sometimes referred to as the Public-Private Partnership, the scheme encourages public bodies to contract with private companies to buy a service, rather than an asset. The "service" may come in many forms; it might be the provision of a fully equipped and maintained hospital, or a school, or even a road. The essential point is that the private partner is paid to make the facility available, but not necessarily to provide the downstream product. It provides the hospital facilities on a 24-hour basis, but not the actual medical service.

This formula would lend itself well to hydropower. The private sector could finance, build, operate, and maintain the project, leaving the utility to dispatch the units and operate the reservoir to suit wider water management obligations. It may be argued that this is what is already happening under some concession agreements, but the difference lies deeper — in the arrangements for the ownership and implementation of the project, and in the payment mechanism.

Many of the difficulties identified in previous articles in this series have their roots in the underlying assumption that the private partner owns the project until it is handed back at the end of the concession. It is time to challenge this assumption. If the utility owned the project from the outset, life would be simpler in many respects. It would be even simpler if the private company

received its income through a series of regular "lease" payments, thereby dispensing with the need for a power purchase agreement. Let us see how it would work in practice:

- The private partner's role would be to finance, construct, operate, and maintain the project for the concession period.
- The utility would develop full designs and specifications for the project, prepare bid documents on the basis of these designs, and supervise construction, commissioning, and maintenance.
- The utility would make regular payments to the private partner, starting early in the construction phase and continuing throughout the concession.
- Payments would be conditional on meeting construction and performance targets, and subject to variation only for design changes and cost escalation, and possibly some financing risks that may have to be shared.
- Bidding would be on the basis of the payment that the private partner would need to deliver the project in commercial operation by a defined date, and to maintain its availability within performance limits.

Many people reading this will recognize that it bears a strong resemblance to a contractor-financed project structure, the main differences being in the payment arrangements and in the requirements for the contractor to remain in an ongoing O&M role. In fact, it sits much closer to the contractor-financed formula than it does to a conventional IPP project. With the exception of imposed design changes, most of the construction risk will rest with the private sector, while hydrological risk will rest, as it always has in the past, with the utility.

With private sector participation shorn of the need for ownership of the project, and looking more like the traditional contracting role, the additional layer of the IPP developer (who normally controls the ownership company, and sits between the utility and the contractor) may no longer be required.

So what does this mean in financing terms? The private entity that will provide the "service" will require approximately the same capital as under the IPP formula, but without the tangible asset of project ownership as backing. There may be some concern that this will make it more difficult to raise money, but in reality the value of most hydro projects rests only on the payment stream. Ownership itself is almost incidental, provided the private sector is adequately protected against any actions by the utility that might undermine its investment.

Under this model, regular lease payments would start during construction. While this may not be viewed with much enthusiasm by the utility, it has the advantage of reducing the financing gap that always exists beyond the more accessible funds like export credits and equity. This gap tends to be difficult and expensive to fill using commercial money, and it is a particular problem for hydro projects with their large civil works content. By putting up some of its own money in advance of receiving any power benefits, the utility will be incurring costs (less so than under the traditional system) but, by injecting early funding, it will greatly facilitate the overall financing.

This "Lease Model," if we call it that, may turn out to have unseen problems. Nonetheless, I think that there is a good chance that it will result in a more competitive price, and provide greater security for all the parties through a simpler contractual structure. It should be possible to solicit interest from a wider range of companies than in the past, and in a more transparent manner that will ease the participation of the international lending agencies whose support will often be needed. It should restore the design and construction process to a firmer footing, and result in better projects that are optimized and engineered for the long term.

Finally, it will hopefully result in more action, and less talk, when it comes to this difficult business of developing private hydro projects. It is surely worth further consideration. ▲

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