

“Working Together for a Secure Power Future”

Bob Elton Speech to the Vancouver Board of Trade Breakfast

March 23, 2004

(Check Against Delivery)

Introduction

Thank you for the kind introduction and for the invitation to be here this morning. In the next few minutes I am going to tell you about some of the issues BC Hydro is facing as we plan for the future, and how we are going to overcome them. Low cost, reliable electricity is vital to all of us. It is an essential service and my commitment to you is that there will be enough low cost, reliable electricity in the future.

First – a caution. We are going through a regulatory process that will see all of our ideas subject to appropriate challenges. I am not here today to anticipate or compromise that process. I am here to share ideas.

Context

I want to begin by setting a context – for our planning.

First, we have a **long time horizon**. We must look out 20 years, because developing and building a large project in particular, can take more than 10 years. So this is an industry where we have to practice sustainability – we have to think about what happens when we are no longer here.

Moreover, planning is not an exact science. Can any of you tell me what your business will look like in 20 years, or for that matter how you expect you will be living personally?

There are many variables, and they can change over time. One example in January of this year, we had a peak demand that was 440 megawatts higher than we would have expected, given the temperature. 440 MW is the equivalent capacity of our Bridge River operation. So we can have all of the engineers and economists and accountants that you want, dancing on the head of a pin to make a forecast; but in the end, we have to accept that we are in a very uncertain world here.

The second key background issue is that there are **many stakeholders** involved, all with strong opinions. So working together in a positive way is vital. BC Hydro's role is to provide leadership where we can, but not make unilateral decisions.

The process we are following is a **regulatory process**. Just to be clear, we at BC Hydro believe strongly that the regulatory process will not only help our customers, but also strengthen our decision-making and our company. Is it perfect? No. Is it hard sometimes? Yes. Is there a better process, to ensure that many different stakeholders are heard in a situation where natural markets are hard to achieve? It's not clear that there is.

A key to the regulatory process is that everyone works hard at it. At BC Hydro we are learning, slowly, how to do it. But the key is that we all work constructively and in the past 12 months or so since our regulatory appearances have started, we have experienced a very consistent, intelligent, balanced process.

The third key background issue is that we have to meet demand as defined in two ways. First, there is the demand for **energy** – that means the amount that we all consume in a year. Second, we have to meet the demand for **capacity** – that means the amount you demand for one hour, in the highest demand time of the year. In BC, that's the winter, as a result of cold weather and all those Christmas lights you put up.

As I'll discuss a little today, energy and capacity demands may be met in different ways, and we must find solutions that deal with both.

So – the **background** is that we must plan for the long term; we must see the regulatory process as an opportunity to work together to find the best solutions; and we must plan for energy as well as capacity.

Now I'd like to turn to the external issues facing our industry, and our situation in B.C. In particular, what do we think are the main patterns that we can see 20 years from now?

Electricity supply and demand – becoming more scarce and more expensive.

I believe electricity will become a scarcer, and more expensive, resource 20 years from now. Demand is rising, and expected to continue to grow. In some parts of the world – like China and India – this is happening very quickly. That rise in demand is putting pressure on the fossil fuels most used to generate electricity, especially in terms of finding more sources close to where they are needed. Natural gas, the fuel of choice for electricity generation in North America over the past few years, is under particular supply pressure, and we see it travelling increasing distances. Coal is reasonably plentiful in the world, but more expensive. Nuclear power is not permitted in many jurisdictions, including our own.

Environment

When deciding on future demand and supply, what importance should we place on environmental values? 20 years from now, I think environmental values will be even higher than they are right now. Why? The generation that is now in its twenties may be the first one to realize that their future could be seriously affected by environmental degradation. Just in the electricity sector, we expect that in the next 30 years, the world will double its generation capacity of electricity.

I also see a general increase in acceptance of the idea that we should be responsible for our actions and that we should not be transferring that responsibility to our children.

For us in the electricity business, that means it will get harder to increase supply by building non-renewable projects. When they are built, there will be an increasing trend to make them pay for their total costs.

Technology

The third issue I see relates to technology. Over the next twenty years, I am not convinced that I see clear, groundbreaking solutions that will change the supply paradigm. Take hydrogen as an example. It may well realise its potential. But right now and for the foreseeable future, it won't replace conventional sources of supply. And today it still takes fossil fuels or nuclear power to produce it. What that means for us is that while we should definitely watch and support supply side options, demand side solutions may be a better focus over the next 20 years.

Cost

The final general issue for consideration is one that flows from the other three. And that is cost.

For if we agree:

- that demand for conventional sources of supply is going to increase while supplies grow scarcer
- that we have to focus on more environmentally friendly ways to meet this increasing demand, given society's values; and
- that technology, at least in the near term, will not provide a panacea solution...

...then there will have to be increasing pressure on the cost of that electricity for our customers. And yet I began my talk today saying that our goal was to maintain that competitive advantage we have here in B.C. with respect to low cost, reliable electricity. BC Hydro's challenge, then, is to find a balance among all these issues that allows us to do that.

Action Plan

So if you take these four assumptions – increasing prices; increasing environmental values; technology on the demand side but not yet on the supply side; and the need to preserve our low-cost advantage – is there a future that works?

I believe there is a path that is open to us, that will get us to a place of long term, reliable power, building on our environmental strengths, through a combination of a strong BC Hydro and BCTC, and a strong private sector, in a way that will keep our customers electricity costs at a low level.

The cornerstones of this path are:

We set a goal of energy self sufficiency in this province, as it relates to electricity for domestic consumption.

This will be opposed by some, who would rather see reliance on imports. Again, some day we may have a more secure world, with better transmission links between us, with less political risks in terms of the United States and its likely need for more energy from us. But we can't bank on that. We currently rely for imports to the tune of about 12% of our demand, in years when we have low water conditions in the Province. Faced with upwards price pressure, and scarcity, this puts a high value on security of supply. We have a legal obligation to serve our customers. "Not enough electricity" is not an option for us.

Going forward, then, I believe we should have a preference for long term supply security at a known cost. We should advance long term acquisitions instead of trying to "time the short term market right."

Remember – if we are wrong and buy more than it turns out we need, we can usually store it and sell it in a reasonable time. If we are wrong and we buy less than it turns out we need, and if I'm right, then we will have increasing costs and scarcity, the cost of that would be considerable.

We build on our strengths in Demand Side management – Powersmart – through a combination of programs for customers, rate structures, and education, so that we tap the ingenuity of our customers and of the private sector to use new ideas and new technology to reduce our energy intensity in this Province.

Demand Side management will continue to grow in prominence. If we work together to use it, then we can achieve the result that our customers see their electricity bills shrink over time, even as economic activity in the Province grows.

We are already counting on it to offset 35% of incremental demand over the next ten years. And it is working. Two years into that plan, we have met or exceeded our goals to date.

And you, our customers, are seeing the benefits already. Large ones like UBC and YVR have already saved millions of dollars through energy efficiency investments. The same is happening for schools and hospitals. One school district in Prince George, for example, achieved annual savings of \$150,000 beginning last year by reducing their consumption by ten percent. And they are on track to save more this year.

We need a combination of programs, rate options, and education, to allow the potential for demand side management to be unleashed. We still consume too much in our society – too much of so many things. We need to get everyone thinking about resources – like electricity and water – in the same way they have learned to think about recycling paper.

To meet the expected demand for energy, we maximise the contribution that can come from small and medium sized IPPs, focussing especially on renewable/green projects.

We combine that with cost-effective projects on the Peace and Columbia systems, which will provide capacity for the system that the green IPP projects typically lack.

This is an important two-step. We are confident we can meet the government's policy of 50% of new supply coming from new, clean sources. We may even exceed it. But we need to meet demand for capacity as well as energy. Small green projects in particular tend to supply energy at a reasonable price, but they are not there all the year round, or when you most need them. Some of the capacity upgrades which we could do on the Peace or the Columbia, are the opposite – they add capacity, but you would not necessarily produce more energy all the year round from those places, because the water isn't there. So by combining the two, you have a low environmental impact, low-cost solution for the Province. And of course such projects will go through a regulatory process to establish that they indeed are the right solutions.

We work with BCUC to support BCTC in its goal of planning for and executing the Transmission upgrades that will be needed to do the above.

Michael Costello will no doubt talk about BCTC's role. Our role here is to explain our needs as we see them, and help the debate at BCUC to be as clear as possible.

We work with the private sector to ensure that we achieve the right balance of supply, and that there is a strong industry with solid roots, to ensure choices in the future.

I actually see the private sector involved in this in two ways – through IPPs delivering power, and through Demand Side management projects large and small. The IPP side is ably represented here today; as for the Demand side, they include our customers as well as a host of larger and small companies.

In terms of our customers, I've already given you some examples of the entities involved.

I know that some members of the IPABC have been critical of our DSM programs, and I hope that they will see that a creative combination of both approaches is the way forward for all of us.

What we must do at BC Hydro is keep learning how to work constructively with IPPs. This is a tough industry to enter, and it is in all of our interests to work together with the IPPs, BCTC and the BCUC to ensure that the rules lead us to make the right economic decisions, and that the rules allow for enterprising companies to succeed. At BC Hydro we will keep working on our processes and on our attitudes and relationships, to see that this happens. We don't want to drown IPPs in a reservoir of bureaucracy.

We keep ourselves aware of and involved with new technology ideas that could revolutionise our business, but we do not take the risk of assuming that such breakthroughs will occur within a short time.

New technology on the supply side would be great, and work will continue on it. We will keep ourselves abreast of trends, and take leadership roles where appropriate.

On the demand side, we believe that the industry has advanced to the point where if there are the right economic incentives – such as DSM programs, and rate structures – together with the right public support – achieved by education – then ideas will appear and be implemented.

Work together to build a superb regulatory structure

This is a small enough Province, and we are small enough in number, that we challenge ourselves to work with Robert Hobbs and his Commissioners and Staff to build on the excellent foundation that we already have. That is up to us as much as it is up to them, because it is a function of the creativity and balance we can show in bringing ideas to the process.

On this, I know I and all of us at BC Hydro have a lot to learn – but I also believe that we can get there.

Centers of Excellence

If you put together everything that I've said, there is room for BC to become a Center of Excellence for that large space where environmental and electricity industries intersect – we can be leaders in green power, in trading green certificates, in hydro power, in demand side management and in new fuel sources like hydrogen. Growth could go well beyond our borders.

Costs

Can we do all this at a reasonable cost? I think we can. We are feeling our way here, but our initial work – which we will start to show in the IEP we file on March 31st – suggests that the real costs of this type of portfolio need not lead to large cost increases. It's up to us, like any business, to learn to be more productive, year by year, so that we minimise overall cost increases.

Conclusion

So I've outlined some steps that, taken together, can be seen as the foundation of a coherent vision for the future of BC in terms of electricity – energy self sufficiency; build on Power Smart; combine Green IPPs with Hydro capacity additions; work constructively between BCH, BCTC and the Private sector; build the right Transmission support; follow technology closely but don't rely on it; build a great regulatory structure; and build a center of excellence for electricity/environmental growth; and keep our cost advantage.

As I said near the beginning, these are not actions that BC Hydro can, or should, take unilaterally. Our role is to help provide a vision, and to work with others to see that it is achieved. There are, I know, many alternative paths.

I think the vision that I've just sketched out is an exciting one that is very achievable, and it can only be enriched with the ideas of others.

Building a plan together, and implementing it, is a great opportunity, and we at BC Hydro look forward to working with you on it in the next few years.

Thank you.