

Régie de l'énergie

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Stepped Rate Consideration

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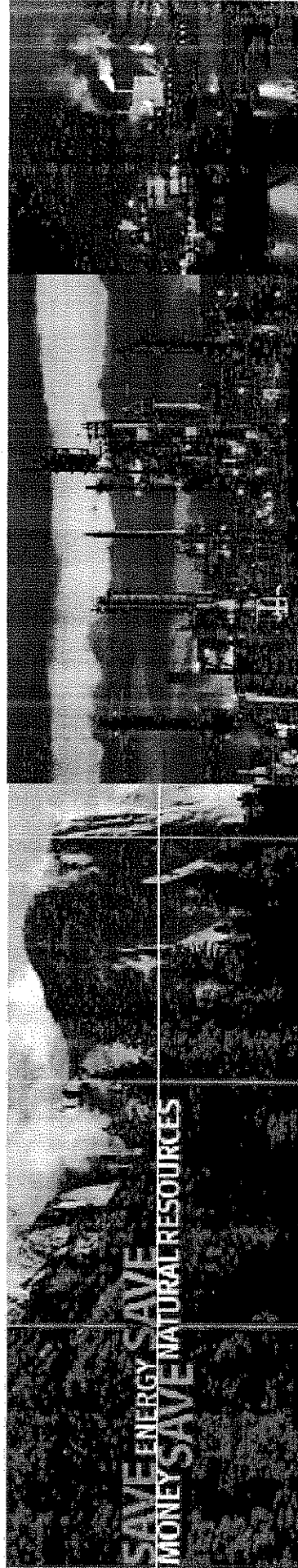
Régie de l'énergie

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Stepped Rate Consideration – Quebec Jurisdiction

Agenda Items

- My Background
- Industrial Energy Efficiency
- Reason for Stepped Rate Consideration
- BC Hydro General Experience
- Industry Examples
- DSM and Stepped Rates

Stepped Rate Consideration – Quebec Jurisdiction



Background

- General Experience
 - > Industrial Efficiency – Utilities and Individual Customers
 - > Cogeneration – Technical Design and Power Sale Negotiations
 - > Former President of Independent Power Producers of B.C.
- Stepped Rate Experience
 - > Participated in Negotiated Settlement Process
 - > Worked with a number of customers on CBL issues
 - > Worked with BC Hydro on development of DSM program to complement Stepped Rate

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Importance of Industrial Efficiency

Status Quo

- A significant percentage of the electrical load in B.C. and Quebec is energy intense industry mainly because of low cost hydro power.
- Strong indication that new power projects will be far more expensive than Patronage or Heritage Power. Industrial Customers are paying in the order of 4 cents/kWh but new power is now more than 8 cents/kWh and I believe it is going to go much higher.

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Importance of Industrial Efficiency

Industrial Customer Perspective

- Energy intense industry is very sensitive to power costs and because of the cost of new power, electricity rates are going to go up one way or the other.
- Canadian energy intense industry in order to be competitive in the world market is going to have to be as efficient or more energy efficient than world competitors.

Societal & General Rate Payer Perspective

- Industrial efficiency can be obtained at a lower cost than new power projects and accordingly needs to be implemented to defer new power projects to avoid rate shock for all customers.

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Importance of Industrial Efficiency

Utility Efficiency – DSM Programs

- BC Hydro and Hydro-Quebec are both aggressively pursuing industrial efficiency acquisition.
- It is important that the utilities work with their industrial customers to obtain as much energy efficiency as quickly as possible.
- These programs are going to increase the probability that energy intense industry will survive, while at the same time defer the cost of expensive new power projects.

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Importance of Efficiency

“We strongly believe that we can lead a change such that by 2027 we would return to 2007 electricity consumption levels while allowing for growth and economic prosperity. In the short term, consumption will go up, but with concerted action we can bring it back down to the levels of 2007.” – Bob Elton, Chief Executive Officer – BC Hydro

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Reason for Stepped Rate Consideration

- Energy efficiency projects should be implemented if the cost of their implementation is less than the cost of new power – Market Price Signal
- Many Energy Intense Industrial facilities would not survive if they had to pay Market Prices for power. Therefore, many jurisdictions are reluctant to implement market pricing.
- It is very difficult or even impractical to design DSM programs to obtain many types of energy efficiency.
- Energy Intense Industry at present time needs stable pricing to survive.

Reason for Stepped Rate Consideration

Stepped rates are an attempt to

- Protect industry from market prices.
- Provide an incentive to implement efficiency projects if they are less expensive than new power.
- Obtain energy savings that are difficult or impractical to obtain with only DSM programs.
- They have to be designed to suit a particular jurisdiction. Also, need to learn from BC Hydro experience.

BC Hydro General Experience

- The stepped rate was originally intended to encourage energy efficiency, self generation and Independent Power development.
- It did not encourage independent power development, there are no IPPs selling to industry.
- Stepped rates have encouraged energy efficiency and self generation
- Rate was implemented after much discussion and negotiation.

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BC Hydro General Experience

- Developing and administering CBLs was difficult and it will continue to be a challenge.
- An important side benefit is that the implementation of the rate forced the utility and individual customers to work together to better understand how customers use power and the implications of industry expansions and curtailments.

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B.C. Project Examples

- BC Hydro's largest customer with the implementation of stepped rates started an Energy Management Program with the goal of reducing its energy consumption by 5% through Operations and Maintenance measures only – Many small projects.
- Major electro-chemical manufacturer implemented efficiency project which will result in a 10% decrease in electricity consumption.
- Another Major customer installed a cogeneration project which will reduce the purchased electricity of the total corporation by close to 10%.

B.C. Project Examples

- One major pulp mill through some operating adjustments were able to increase their self-generation and reduce their electricity purchases by close to 5%.
- I have been encouraging B.C. industry to consider energy efficiency options for close to 20 years and I have never experienced them to be more open to suggestions than at the present time. In my opinion the marginal price signal works.

DSM and Stepped Rates

DSM

- Capital projects – requiring purchase of more efficient equipment.
- Very effective when customer is planning expansion or changeout of older equipment.
- Does require customer to co-ordinate purchase of equipment to suit utility DSM incentive application process

Stepped Rate

- Appropriate for Operation and Maintenance measures.
- Useful to encourage incremental self-generation.
- Useful when customers cannot co-ordinate purchase of equipment to suit utility DSM incentive application process.