

A New Approach to DSM at BC Hydro

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Outline



- BC Hydro background
- Old approach to DSM
- Trigger for new approach
- Notable aspects of new approach

BC Hydro background



- Third largest electric utility in Canada
- 11,000 MW and 55,000 GWh/yr
- Owned by provincial government
- Pursued DSM for ~15 out of last 20 years

Old approach to DSM



- Incentive programs targeting all customer sectors
- Public awareness and education program
- In 2002-2007, DSM scaled to meet 1/3 of demand/supply gap

Trigger for a new approach



- New energy policy from provincial government in 2007
 - BC Hydro to meet 50% of demand/supply gap with DSM
 - utilities to pursue all cost-effective DSM
 - utilities to explore conservation rate structures
- At same time, BC Hydro adopted a long term goal to eliminate load growth through DSM
- Conclusion: can't achieve 50% of gap or eliminate load growth using old approach

Notable aspects of new approach



1. Utility regulatory framework
2. External advisory group
3. Strategic framework for DSM

4. Large industrial: conservation rate structure
5. Large industrial: DSM program for existing facilities

6. Residential behaviour program
7. Sustainable communities program
8. Local community engagement

9. Codes and standards

Utility regulatory framework



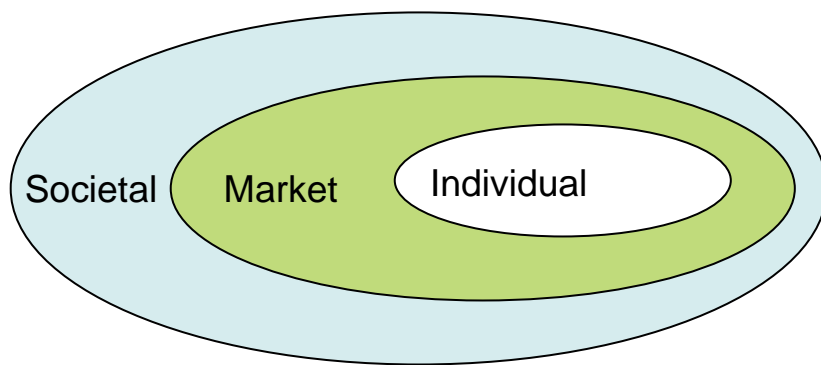
- Provincial government amended legislation setting out utility regulatory framework
 - In effect:
 - utilities are to pursue all cost-effective DSM
 - regulator is to judge whether they've done that before approving new supply
- Provincial government also passed a regulation that supports justification of utility expenditures on:
 - low income programs
 - DSM initiatives that do not deliver direct energy savings

External advisory group



- 25 members representing diverse interests
- Mandate is to advise BC Hydro on DSM strategy
- Benefits to BC Hydro:
 - Useful ideas and advice
 - Better results in regulatory proceedings
 - Recommendations used to support our positions
 - Increased understanding and support among selected intervenors

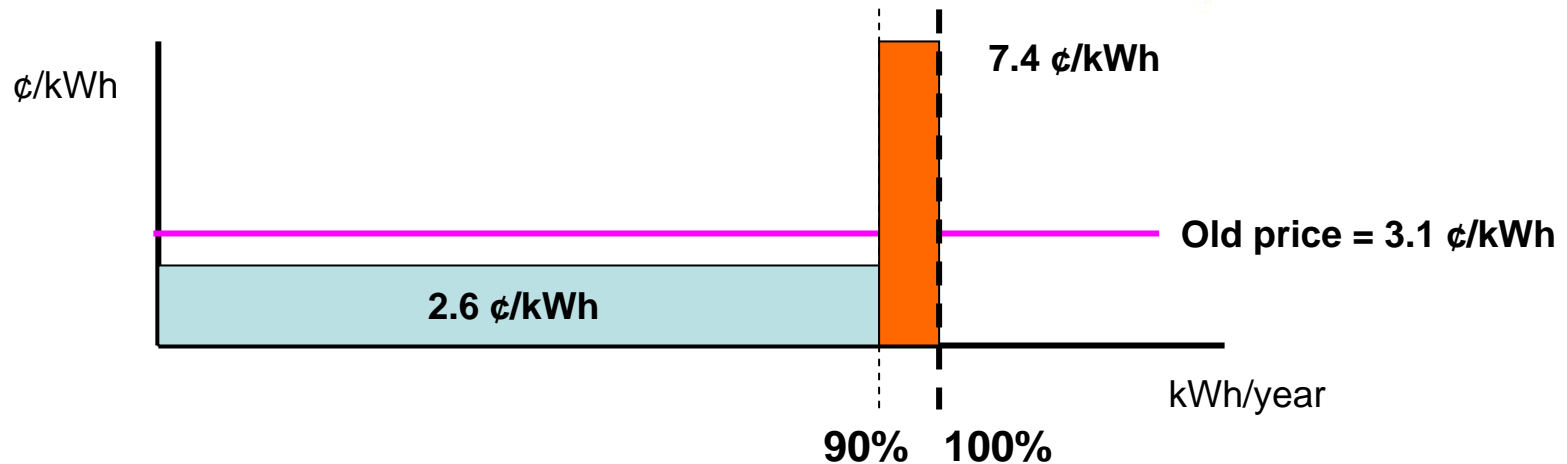
Strategic framework for DSM



- Individual: influence decisions by individual consumers
- Market: change rules or parameters that affect energy decisions by all consumers
- Societal: change societal norms or patterns that influence energy

Conservation rate structure for large industrial

BC Hydro
powersmart



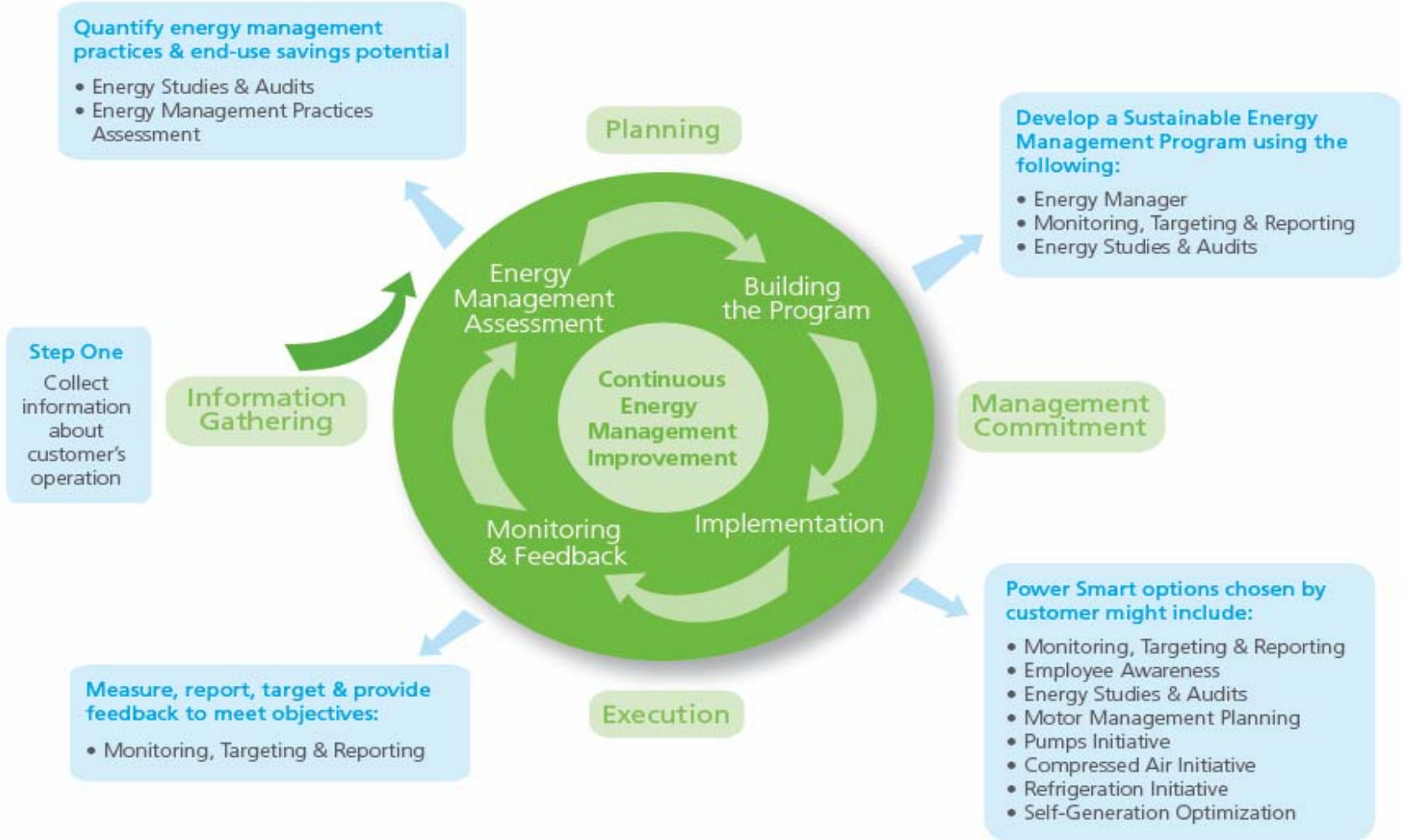
- Customized baseline for each customer
- 0 – 90% of baseline charged at lower price; everything above 90% charged at higher price
- Provides a higher price signal for conservation than previous DSM incentives
- Encourages operational and maintenance savings

DSM program for existing large industrial customers



- New rate structure prompted a rethink of this program.
- From:
 - project by project focus
 - DSM incentives
- To:
 - continuous improvement in energy management
 - facilitate customer response to the rate structure

Continuous improvement in energy management



Residential behaviour program

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- Program centered around membership on a team
- “Join Team Power Smart and commit to saving 10% in one year”
- Celebrity teams at provincial and community levels
- Behavioural energy saving tips
- Online feedback on progress towards 10% target and performance relative to others
- Incentive for achieving target



"I'M REALLY EXCITED ABOUT BEING PART OF THE TEAM. I KNOW THAT TOGETHER WE'RE GOING TO MAKE A HUGE DIFFERENCE."

NBA superstar Steve Nash isn't the kind of guy to take his role as the captain of Team Power Smart lightly. Frankly, he doesn't seem like the kind of guy to take any challenge lightly.

Take his Vancouver fitness club, Nash set out to promote every aspect of healthy living with the club—from the nutritious offerings in its café, to the recycled rubber on its floors, to the energy-efficient light bulbs that brighten its spaces.

Light bulbs as a part of healthy living? Well, if every home in BC switched just four lights to energy-efficient compact fluorescent, then we would save enough electricity in one year to power 6M Place for the next 20. Think of it as healthy living on a very big scale, for generations to come.

Make a difference today.
Set your goal and we'll help you succeed.
Join Team Power Smart at bchydro.com

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Sustainable communities program



- Focuses on multi-building developments and entire communities rather than single buildings
- Promotes incorporation of energy considerations in local government planning:
 - greater densification
 - more use of renewable district energy and waste heat
- Provides funding for community energy managers in local governments

Local community engagement



- Aim is to tap influence of community-level organizations
- Sponsor community events for face-to-face interaction
- Partner with trusted organizations to deliver our conservation message
 - e.g. local home builders chapter, Boy Scouts, environmental group, Chamber of Commerce, etc
- Team of regional representatives build relationships with potential partners

Codes and standards



- Included savings from planned changes to codes and standards in DSM plan
 - To capture them in demand/supply planning
 - To send the clear message to governments that we are relying on them to come through
 - To support our justification of expenditures in support of changes to codes and standards

End result

- Planning to meet ~75% of demand/supply gap with DSM

