Strategic Energy Management: Efficiency First

Case Study Karen Magnussen CRC

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CURRENT ENERGY INVESTMENT

3.4 million
total energy cost ($)

37.9 million
total energy use (eKWh)

4,376 tonnes
total ghg emissions (egCO₂)
CURRENT STATE: ENERGY USE 2015

- NVRC: 31%
- Fleet: 23%
- Corporate: 11%
- Lighting: 10%
- Utilities: 9%
- Lighting: 10%
- Properties: 6%
- Fire: 4%
- Parks: 3%
- Misc.: 3%

37.9 million total energy use (kWh)
CURRENT STATE: ENERGY COSTS 2015

- NVRC: 20%
- Fleet: 24%
- Utilities: 12%
- Lighting: 23%
- Corporate: 8%
- Properties: 6%
- Fire: 3%
- Parks: 2%
- Misc.: 2%

Total energy cost: $3.4 million
DNV STRATEGY: EFFICIENCY FIRST

1. **Avoid Waste**: Energy, Material, Effort, Money and Time
2. **Reduce Energy use** before finding new sources
3. **Integrate capital renewal and operations**
TARGET: 30% REDUCTION GHGS

2011

2020

30%
MEETING TARGET: REDUCING ENERGY USE

Strategic Energy Management Plan
BY THE NUMBERS

$632,000  UBCM funding
$180,000  Incentives
$120,000  Annual Energy Savings
50% est  Natural Gas Savings/ GHG Reductions
OPERATIONAL BENEFITS

1. Upgrading building equipment
2. Facility longevity
3. Positive comfort work & play spaces
4. No facility shut-down
5. Operator training
6. Dramatic GHG reductions

Before

After
CLIENT BENEFITS

- Improved **Comfort**
- **Temperature and humidity** will be easier to regulate – comfort in pools & Ice quality
- **Lighting** – right brightness and colour
- **Fresh Air** will be maximized at lower energy cost
QUESTIONS?

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