



KNOCKING DOWN ENERGY EFFICIENCY BARRIERS

Chad Nugent, Vice President Real Estate
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Project History

- Acquired site 2010
 - Tikahtnu-Regal
- Design/Site work
 - Fall 2013
- Foundation start
 - Spring 2014
- Occupy
 - Summer 2015



Building Facts

- 114,095 square feet
- 8 floors
- Designed by RIM Architects
- Constructed by Davis Constructors and Engineers



Incorporating Energy Efficiency

- Advantages
 - Operational cost savings
 - Good for the environment
 - Captures tenants who have sustainable corporate philosophy
 - Public perception
- Disadvantages
 - New technologies-some unproven
 - High upfront cost
 - System integration with utilities-providers

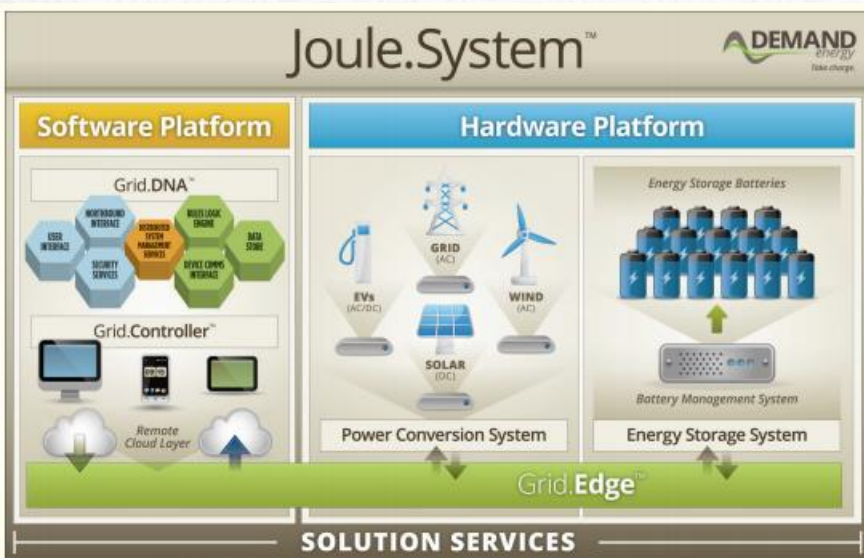
Schematic Design Phase Ideas

- Fuel cell technology
 - Convert fuel to electricity without combustion
- Micro turbines
 - Turn natural gas into heat and electricity-efficient



Schematic Design Phase Ideas

- Battery storage
 - Shed load during expensive peak times avoiding charges



Schematic Design Phase Ideas

- Geothermal
- Wind
- Solar



To LEED or not to LEED?

- Drawbacks
 - Not aligned with Alaska well
 - Alternate transportation
 - Energy usage required-climate
 - Water reduction portion
 - Etc.
 - Associated costs
 - Paperwork
 - Design fees
 - Buying points to reach level
 - Lengthy process to complete after occupancy
- Benefits
 - Government leases
 - Corporate missions
 - Limited competition
 - Public perception



How Incorporated-Fireweed

- Pushed decision to pursue till later in project design
- Identified points already met after initial schematic was complete
- Found other points that made sense and incorporated
- Ongoing efforts targeted LEED Silver
- Current status
 - Finishing up LEED paperwork
 - Project may reach Gold rating

End Results

- Focused on improved performance
 - Lowered operating costs
 - High level of occupant comfort
- Technology used
 - LED lighting-control system
 - Dynamic glass
 - Daylighting panels
 - Vacuum insulated panels
 - VRF HVAC system

Reasons for design

- CIRI believes in sustainability
- The building is our home
- Looking at 50 year plus investment
- First costs low compared to potential savings from ongoing operations

Modeling

