Willie Conway

chapter1.html



Brief History of Electric Power

Thomas Edison's first electric power plant generated 110-volt direct current (DC) for lighting and variable-speed machinery in nearby buildings. But efficient transmission of power over long distances requires higher voltages. In those days, the only way to transform DC voltage was to use a "genset" - a DC motor driving a DC generator. That's two rotating machines, with four

Then Nikola Tesla invented the alternating current (AC) induction motor and transformer. With constant AC frequency, an induction motor's speed cannot vary, but it is cheaper and more durable than a DC motor. Since a transformer has no moving parts and just two windings, it is cheaper and more durable than a DC genset. So at the dawn of the 20th century, AC won "the

But not forever. In the middle of the 20th Century, computers began consuming progressively more DC power. Then came the insulated-gate bipolar transistor (IGBT) and the voltage-source converter (VSC). A VSC can make variable-frequency AC which runs induction motors at variable speed, and it easily transforms DC.

DC power, computer control, and the internet are helping the power grid accept variable renewable resources like wind and solar. And they are improving electrical distribution systems on campuses, in neighborhoods, and in buildings. With local energy generation and storage, distribution systems are evolving into robust "microgrids."

- * 1882: Edison's Pearl Street DC power plant in New York
- * 1884: Tesla invents closed-core AC transformer in Budapest * 1886: Thorenberg AC power plant in Lucerne
- * 1985: Insulated-gate bipolar transistor by Toshiba
- * 2012: UCSD 42-megawatt microgrid in southern California

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <meta name="author" content="Willie Conway">
  <meta name="keywords" content="Microgrid, Electricity">
  <meta name="description" content="This is a web site about the electric power grid.">
  <title>Electric Power History</title>
</head>
  <h2>Brief History of Electric Power</h2>
  <hr>
  >
    Thomas Edison's first electric power plant generated 110-volt direct
    current (DC) for lighting and variable-speed machinery in nearby
    buildings. But efficient transmission of power over long distances
    requires higher voltages. In those days, the only way to transform DC
    voltage was to use a "genset" - a DC motor driving a DC generator.
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  >
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>

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<hr>

<div>

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</div>

</body>

</html>

Chapter2.html



The History of Lawrence Hydropower

In 1874 Lawrence Kansas residents had burned all the region's wood, and fossil fuels were not available. Orlando Darling built a dam across the Kansas River north of town and strung mechanical cables from a water wheel to power local industries. Justin Bowersock bought the operation, naming it "The Bowersock Mills & Power Company" (Bowersock). Bowersock's slogan is:

Producing clean, renewable hydropower since 1874

"By 1885, twelve water wheels drove two flouring mills, a paper mill, two elevators, a twine factory, two machine shops, the Leis chemical works, two printing offices, the barb wire works and a few other minor industries... Rebuilding from the ice damage of 1888... Bowersock introduced four dynamos that turned raw power into electrical energy." History of Bowersock Power. To supplement the old 2.4 MW plant on the south side of the river, Bowersock recently added a new 4.6 MW plant on the north side.

To raise funds for the new 4.6 MW plant, Bowersock signed a 25-year power-purchase agreement with Kansas City's Board of Public Utilities (BPU), saying Bowersock must send BPU (annual average power) \geq (80% of its total generating capacity). Instantaneous power is proportional to (water flow rate) X (water height difference). Because the river's flow varies with rainfall, the power delivered also varies. To maximize deliverable energy, Bowersock employs a rain-of-the-river policy. This keeps the upstream water level as high as possible and uses whethere flow occurs with the maximum upstream level.

Energy is stored in the height of the upsteam water. By intentionally varying this height, Bowersock could use the stored energy to offset variation in local rate of consumption or renewable power generation. But this might compromize Bowersock's contract with BPU. Therefore: Until the BPU contract ends, energy stored in the water behind the dam is not available to Lawrence.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <meta name="author" content="Willie Conway">
  <meta name="keywords" content="Microgrid, Hydropower">
  <meta name="description" content="This is a web site about hydropower in Lawrence.">
  <title>Lawrence Hydropower</title>
</head>
<body>
  <h2>The History of Lawrence Hydropower</h2>
  >
    In 1874 Lawrence Kansas residents had burned all the region's wood, and
    fossil fuels were not available. Orlando Darling built a dam across the
    Kansas River north of town and strung mechanical cables from a water
    wheel to power local industries. Justin Bowersock bought the operation,
    naming it "The Bowersock Mills & Power Company" (<dfn>Bowersock</dfn>).
    Bowersock's slogan is:
  <blook/duote cite="http://www.bowersockpower.com">
    Producing clean, renewable hydropower since 1874</blockquote>
  >
    <q>By 1885, twelve water wheels drove two flouring mills, a paper mill,
    two elevators, a twine factory, shirt factory, two machine shops, the
```

Leis chemical works, two printing offices, the barb wire works and a few other minor industries... Rebuilding from the ice damage of 1888... Bowersock introduced four dynamos that turned raw power into electrical energy.</q> <cite>History of Bowersock Power.</cite> To supplement the old 2.4 <abbr title="megawatt">MW</abbr> plant on the south side of the river, Bowersock <time datetime="2013-05-10">recently</time> added a new 4.6 MW plant on the north side.

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</body>
</html>

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In 1874 Lawrence Kansas residents had burned all the region's wood, and fossil fuels were not available. Orlando Darling built a dam across the Kansas River north of town and strung mechanical cables from a water wheel to power local industries. Justin Bowersock bought the operation, naming it "The Bowersock Mills & Power Company" (Bowersock). Bowersock's slogan is:

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homework1.html



Brief History of Walmart

Sam Walton's Journey to Success

At just age 26, with \$5,000 saved up, and a loan gifted from his father-in-law, Sam Walton purchased a Ben Franklin variety store, where he average \$225,000 in three years. With his powerful mindset for indulging in retail and franchise concepts, he achieved great success in a small period of time, before he became the big retail mogul he is today. Walmart's mission statement is to "save people money so they can live better." With our economy already making it difficult to survive, it was Sam Walton that believed,

"if we work together, we'll lower the cost of living for everyone, we'll give the world an opportunity to see what it's like to save and have a better life."

Walmart is the worlds largest retailer by far, the company reels in a towering \$524 billion dollars a year in total revenue. "Grocery sales make up for 56% of Walmart's total U.S. revenue, making it the country's largest grocer.

The legacy of Sam Walton still lives on today, as he has set the tone for many businesses in the food industry and retail. To achieve this prolonged and epic success, he used the strategy in believing that,

"There is only one boss. The customer. And he can fire everybody in the company from chairman on down, simply by spending his money somewhere else."

This saying sets the tone for, "the customer is always right." It's clear that Amazon might be the clear winner in delivery, but Walmart will always be the leader in grocery pickup.

Reference: grocerydive.com

Timeline of Events

- ** 1962: Sam Walton opens the first Walmart store in Rogers, Arkansas on July 2, 1962.

 ** 1967: The Walton family accumulates 12.7 million in sales in the mist of owning only 24 stores.

 ** 1971: Walmart opens it's first distribution center and Home Office in Bentonville, Arkansas.

 ** 1979: The Walmart Foundation finally becomes established.

 ** 1980: Walmart reaches 51 billion in annual sales, faster than any other company at the time.

 ** 1980: Walmart has 276 stores and employs 21,000 associates. The Walton family establishes the WEF.

 ** 1992: Sam Walton receives the Medal of Freedom before shortly passing. He was only 74. Rob Walton takes over and becomes COB.

 ** 1907: The commany summasses over \$100 billion in sales.
- ** 1997: The company surpasses over \$100 billion in sales.

 ** 2000: Walmart enters new millennium dedicated to offering customers a online, store, or mobile device shopping experience.

 ** 2002: The company celebrated 50 years of success and tops the Fortune 500 ranking of America's largest companies.

 ** 2018: Walmart continues to pave in the way in retail innovation, benefiting customers and associates alike by leveraging new technology.

Reference: corporate.walmart.com

```
Willie Conway
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<!DOCTYPE html>
<html lang="en">
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<!--
Metadata pertaining the HTML document
  <meta charset="utf-8">
  <meta name="author" content="Willie Conway">
  <meta name="keywords" content="Walmart, Sam Walton, History, Grocery Store">
  <meta name="description" content="This is a web site about the history of Walmart.">
  <meta http-equiv="refresh" content="30">
  <title>Walmart History</title>
</head>
<!--
Uses the body element to define the
document's body, which displays all
contents about the document, such as
headings, paragraphs, quotations, etc.
The cite attribute is used to specify
URL to explain quotation.
-->
<body>
  <h2>Brief History of Walmart</h2>
  <hr>
  <h3><em>Sam Walton's Journey to Success</em></h3>
  >
    At just age 26, with <strong>$5,000</strong> saved up, and a loan gifted from his father-in-law,
    <a href="https://en.wikipedia.org/wiki/Sam Walton">Sam Walton</a> purchased a
    <a href="https://en.wikipedia.org/wiki/Ben_Franklin_(company)">Ben Franklin</a> variety store, where
    he average <strong>$225,000</strong> in three years. With his powerful mindset for indulging in retail
    and franchise concepts, he achieved great success in a small period of time, before he became the big
    retail mogul he is today. Walmart's mission statement is to "save people money so they can live better."
    With our economy already making it difficult to survive, it was Sam Walton that believed,
  <blockquote cite="https://corporate.walmart.com/our-story/our-history">
   <strong>
    "if we work together, we'll lower the cost of living for everyone, we'll
    give the world an opportunity to see what it's like to save and have a better life."
   </strong>
  </blockquote>
  >
    Walmart is the worlds largest retailer by far, the company reels in a towering
    <strong>$524 billion</strong> dollars a year in total revenue.
  <q cite="https://www.cnbc.com/2019/11/14/walmart-is-a-grocery-powerhouse-and-it-still-has-room-to-
run.html">
    Grocery sales make up for <strong>56%</strong> of Walmart's total U.S. revenue,
    making it the country's largest grocer.
  </q>
  >
    The legacy of Sam Walton still lives on today, as he has set the tone for many businesses in
    the food industry and retail. To achieve this prolonged and epic success, he used the strategy
```

```
in believing that,
  <br/><blockquote cite="https://www.brainyquote.com/quotes/sam_walton_46810">
    "There is only one boss. The customer. And he can fire everybody in the company from chairman on
    down, simply by spending his money somewhere else."
   </strong>
  </blockquote>
  >
    This saying sets the tone for, "the customer is always right." It's clear that Amazon might be the
    clear winner in delivery, but Walmart will always be the leader in grocery pickup.
    Reference:<a href="https://www.grocerydive.com/news/walmarts-grocery-pickup-is-reaching-new-high-
value-shoppers/555158/">
    grocerydive.com
  </a>
  <hr>
<!--
 Use div tag to define the Timeline
of Events pertaining to Walmart's
success over the years, since the
very start of the business, to now.
line breaks and abbreviation elements
are widely used. The href attribute is
used to link pages.
-->
  <h3><em>Timeline of Events</em></h3>
  <div>
    ** 1962: Sam Walton opens the first Walmart store in Rogers,
     Arkansas on July 2, 1962. <br>
    ** 1967: The Walton family accumulates 12.7 million in sales in
     the mist of owning only 24 stores. <br>
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     Home Office in Bentonville, Arkansas. <br>
    ** 1979: The <a href="https://walmart.org"> Walmart Foundation</a>
     finally becomes established. <br>
    ** 1980: Walmart reaches $1 billion in annual sales, faster
     than any other company at the time. <br>
    ** 1980: Walmart has 276 stores and employs 21,000 associates. The
     Walton family establishes the <abbr title="Walton Family Foundation">
     WFF</abbr>. <br>
    ** 1992: Sam Walton receives the Medal of Freedom before shortly passing.
     He was only 74. Rob Walton takes over and becomes <abbr title="Chairman Of the Board">
     COB</abbr>. <br>
    ** 1997: The company surpasses over $100 billion in sales. <br>
    ** 2000: Walmart enters new millennium dedicated to offering
     customers a online, store, or mobile device shopping experience. <br>
    ** 2002: The company celebrated 50 years of success and tops the
     <a href="http://fortune.com/fortune500/">Fortune 500</a> ranking
     of America's largest companies. <br>
    ** 2018: Walmart continues to pave in the way in retail innovation,
     benefiting customers and associates alike by leveraging new technology.<br>
    >
```

```
Reference:<a href="https://corporate.walmart.com/our-story/our-history">
     corporate.walmart.com
    </a>
    </div>
</body>
</html>
```

homework2.html



About the Waltons

In 1962, Sam Walton embarked on a journey to achieve global success in retail, making a difference in the lives of people and customers. Thanks to his visionary leadership, and the generations of associates helping customers, Walmart has globalized a way to help people "save money and live better." Shortly after his death in 1992, his prized fortune of \$8.6 billion was inherited by his four children; Alice, Jim, John, and Samuel Walton. Today, that revenue is at a astonishing \$524 billion, not to mention their combined estimated wealth of \$130 billion, deeming them the richest family in America, according to Forbes. It seems that the Walton's did not only inherit their father's wealth, but also his drive for greatness. He once said that,

our niche by going exactly in the opposite direction."

Sam couldn't be more then proud to see the change his business has brought for many communities

The Best Value is Great Value

By 1993. Walmart launched it's Great Value brand. It ended up spanning over "more than 100 categories and is the country's largest food brand in both sales and volume."

The GV brand has been recorded to earn more than \$27 billion annually. Walmart's CEO, Doug McMillan, stated that

"We prefer's to sell brands for less, but we're also improving our private brands, and they're growing faster than our overall sales. 18 of them do more than \$1 billion in sales and our largest private brand Great Value does more than \$27 billion a year globally."

Groceries and private label penetration, is pivotal to grossing Walmart's business. "Grocery sales on a two-year stacked basis were among the best in the 10 years."

The GV brand is set in place to provide convenience for customers. Sam always thought about the benefit of customers, and what better way to go by doing so, then to create a brand with lower prices then what you would see in your average marketplace. Great Value makes shopping with ease less than a risk.

Leading the Future of Retail

In 1990, Walmart became the No.1 retailer, and today it still is. This time around the technology has become more universal in our economy, and Walmart sees the advantage. Walmart unrevealed its new technological weapon, called the "Alphabot." The Alphabot is used to assist Walmart in picking, packing and delivering online grocery orders faster. The new platform has been in testing since 2019. With Walmart's grocery revenue making up for 56% of their sales, this new technology can be a big help to managing and handling online customers. This is efficient for a supermarket like Walmart do to their online hustle of customers. With other potential rivals, such as Amazon, Costco and Kroger, Walmart has been been holding its sown. However, action, it's also about giving. In 1987, The WIFE was established. The Walton Family Foundation is a family-led foundation that tackles tough social and environmental problems with urgency and a long-term approach to create access to opportunity for people and communities.

WFF Milestones

```
** 1987: WFF is established.
```

** 1989: Annual giving reaches \$1.4 million. Foundation awards its first public charter startup grant
** 2017: \$2.1 million is invested in Atlanta public Schools' Turnaround Strategy.
** 2017: Annual giving exceeds \$500 million.

Reference: www.waltonfamilyfoundation.org

```
CS240 Web Programing I Unit I
Willie Conway
<!DOCTYPE html>
<html lang="en">
<head>
<!--
Metadata pertaining the HTML document
-->
  <meta charset="utf-8">
  <meta name="author" content="Willie Conway">
  <meta name="keywords" content="Retail, Walton Family, Grocery Store, Great Value">
  <meta name="description" content="This is a web site about the Walton Family and Great Value.">
  <meta http-equiv="refresh" content="30">
  <title>About the Waltons</title>
</head>
```

```
<!--
 Uses the body element to define the
document's body, which displays all
contents about the document, such as
headings, paragraphs, quotations, etc.
The cite attribute is used to specify
URL to explain quotation and the mark
element to highlight important text.
-->
<body>
  <h2>About the Waltons</h2>
  <hr>
  <g>
    In 1962, Sam Walton embarked on a journey to achieve global
    success in retail, making a difference in the lives of people
    and customers. Thanks to his visionary leadership, and the generations
    of associates helping customers, Walmart has globalized a way to help
    people <strong>"save money and live better."</strong> Shortly
    after his death in 1992, his prized fortune of <strong>$8.6 billion</strong>
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    that revenue is at a astonishing <strong>$524 billion</strong>, not to mention
    their combined estimated wealth of <strong>$130 billion</strong>, deeming them
    the richest family in America, according to <a href="https://www.forbes.com/families/list">
    <em>Forbes</em></a>. It seems that the Walton's did not only inherit their father's wealth,
    but also his drive for greatness. He once said that,
  <br/><blockquote cite="https://corporate.walmart.com/our-story/history/10-rules-for-building-a-business">
  <strong>
  <mark>
    "If everybody is doing it one way, there's a good chance you can
    find your niche by going exactly in the opposite direction."
  </mark>
  </strong>
  </blockquote>
  >
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  <h3><em>The Best Value is Great Value</em></h3>
    By 1993, Walmart launched it's Great Value brand.
    It ended up spanning over
  <strong>
  <mark>
  <q cite="https://corporate.walmart.com/newsroom/2009/03/15/walmarts-revamped-great-value-brand-
delivers-affordable-quality-choices-when-consumers-need-them-most">
    more than 100 categories and is the country's largest
    food brand in both sales and volume.
  </q>
  </mark>
  </strong>
  >
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```

```
recorded to earn more than $27 billion annually. Walmart's
    <abbr title="Chief Executive Officer">CEO</abbr>, Doug McMillan, stated that
  <blookguote cite="https://storebrands.com/walmarts-great-value-brand-earns-more-27-billion-
annually#: ":text=%2218%20of%20them%20do%20more,%2427%20billion%20a%20year%20globally.%22">
  <strong>
  <mark>
    "We prefer's to sell brands for less, but we're also improving
    our private brands, and they're growing faster than our overall
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  </mark>
  </strong>
  </blockquote>
  >
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  <q cite="https://storebrands.com/walmarts-great-value-brand-earns-more-27-billion-
annually#:~:text=%2218%20of%20them%20do%20more,%2427%20billion%20a%20year%20globally.%22">
    Grocery sales on a two-year stacked basis were among the best
    in the 10 years.
  </q>
  >
    The <abbr title="Great Value">GV</abbr> brand is set in place
    to provide convenience for customers. Sam always thought about
    the benefit of customers, and what better way to go by doing
    so, then to create a brand with lower prices then what you
    would see in your average marketplace. Great Value makes
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<!--
 Use dfn element to define the Walton Family Foundation
-->
  <h3><em>Leading the Future of Retail</em></h3>
    In 1990, Walmart became the No.1 retailer, and today it still is.
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    called the "<strong>Alphabot</strong>." The <a
href="https://corporate.walmart.com/newsroom/2020/01/08/how-walmarts-alphabot-is-helping-to-
revolutionize-online-grocery-pickup-and-
delivery#:~:text=Developed%20specially%20for%20Walmart%20by,items%20ordered%20for%20online%20grocery
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    tackles tough social and environmental problems with urgency and a long-term approach
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```

```
<!--
 Use div tag to define the Walton
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 the years, since the very start of
 the business, to now. line breaks
 and abbreviation elements are used.
 The href attribute is used to link pages.
  <h3><em><strong>WFF</strong> Milestones</em></h3>
  <div>
    ** 1987: <abbr title="Walton Family Foundation">WFF</abbr> is established. <br>
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    ** 2017: $2.1 million is invested in Atlanta public Schools' Turnaround Strategy. <br>
    ** 2017: Annual giving exceeds $500 million.
    Reference:<a href="https://www.waltonfamilyfoundation.org/about-us/our-history">
      <mark>www.waltonfamilyfoundation.org</mark>
  </a>
  </div>
</body>
</html>
```