



UTSA SmartLiving Campus

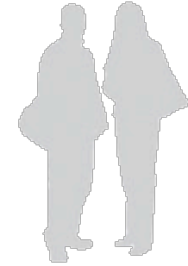
A Real-Time Approach to
America's Future



Commercial Energy Efficiency

Energy efficiency and conservation are two cost-effective, yet often overlooked, methods for tackling demand side management

Energy efficiency measures in the US would create



600,000-900,000 green jobs

and...

Reduce energy by

29%
by 2020



Save

US\$ 290 billion
in energy costs

Avoid about

360 million tons
of GHG emissions that year

87% of this potential exists in retrofitting buildings

Source: A Profitable and Resource Efficient Future: Catalysing Retrofit Finance and Investing in Commercial Real Estate, World Economic Forum, October 2011.



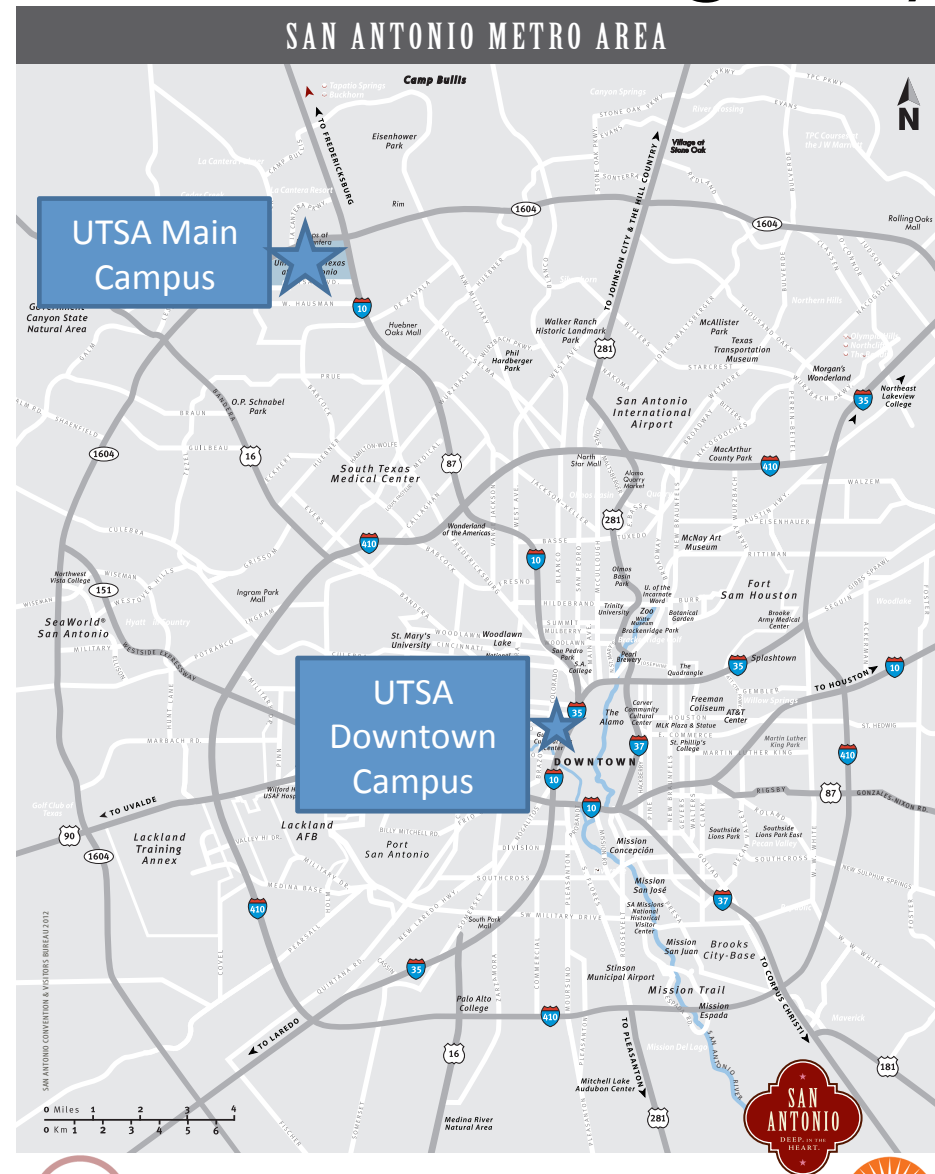
San Antonio: SmartLiving City

San Antonio

- 1.33 Million People
- 440,000 Single Family Homes
- Fastest growing city of the top 10 largest cities in the U.S. in the last decade

UTSA

- 30,000 students
- About 5 million sf of building space
- 15+ MW demand/day

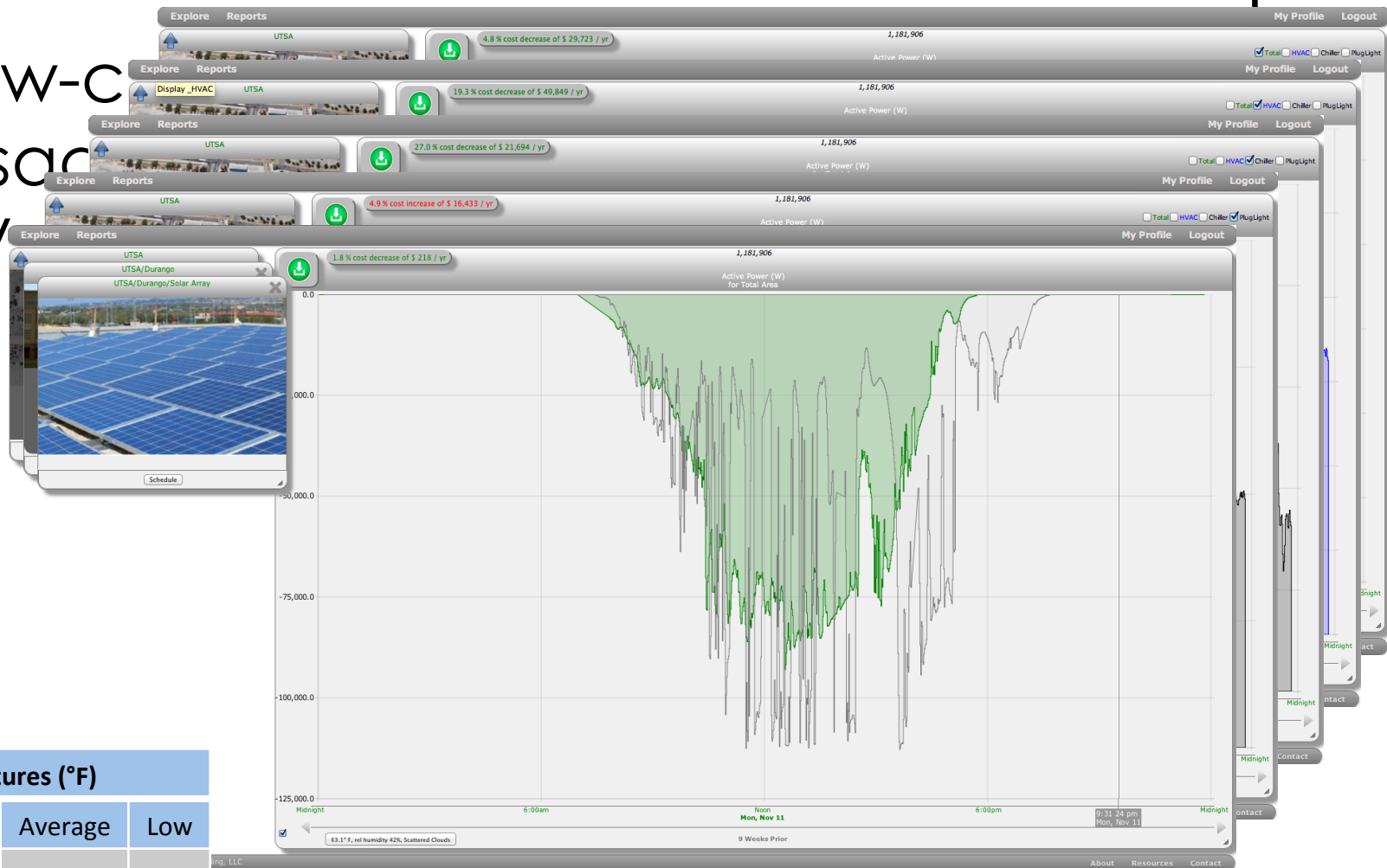


UTSA Downtown Campus



UTSA Downtown Campus

- Low-C
- disa
- PV



Temperatures (°F)

| Date | High | Average | Low |
|----------|------|---------|-----|
| 9/9/13 | 97 | 86 | 74 |
| 11/11/13 | 78 | 69 | 59 |



Washington Place



- Built in 1976
- Brick veneer
- 25,200 SF building
- 36 kW demand /day



Future Potential



Thank You



Thank you!

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Growth in San Antonio

Population Change for the Ten Most Populous and Ten Fastest-Growing Incorporated Places: 2000 to 2010

(For information on confidentiality protection, nonsampling error, and definitions, see www.census.gov/prod/cen2010/doc/pl94-171.pdf)

| Place | Population | | Change | |
|--------------------------------|------------|-----------|----------|---------|
| | 2000 | 2010 | Number | Percent |
| MOST POPULOUS | | | | |
| New York city, NY | 8,008,278 | 8,175,133 | 166,855 | 2.1 |
| Los Angeles city, CA | 3,694,820 | 3,792,621 | 97,801 | 2.6 |
| Chicago city, IL | 2,896,016 | 2,695,598 | -200,418 | -6.9 |
| Houston city, TX. | 1,953,631 | 2,099,451 | 145,820 | 7.5 |
| Philadelphia city, PA. | 1,517,550 | 1,526,006 | 8,456 | 0.6 |
| Phoenix city, AZ. | 1,321,045 | 1,445,632 | 124,587 | 9.4 |
| San Antonio city, TX | 1,144,646 | 1,327,407 | 182,761 | 16.0 |
| San Diego city, CA. | 1,223,400 | 1,307,402 | 84,002 | 6.9 |
| Dallas city, TX | 1,188,580 | 1,197,816 | 9,236 | 0.8 |
| San Jose city, CA. | 894,943 | 945,942 | 50,999 | 5.7 |



Analytics from Data Informatics

