

# Anchorage Climate Action

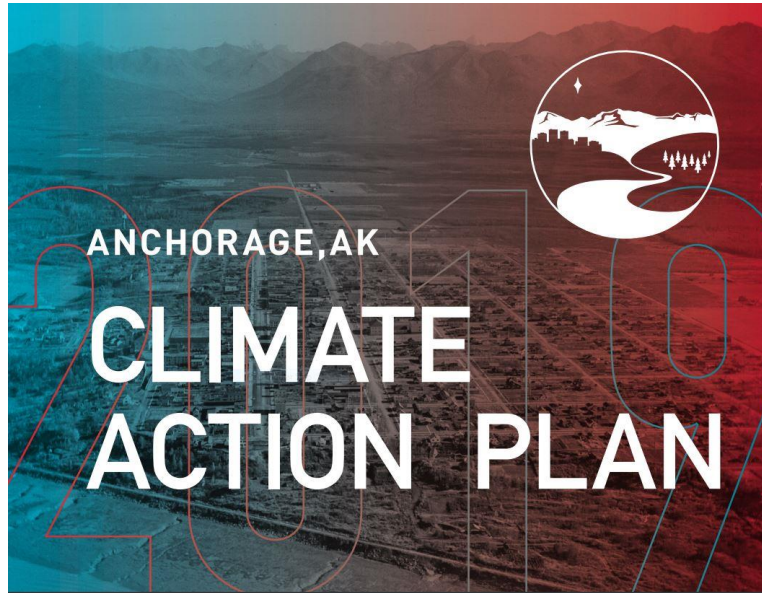
Shaina Kilcoyne

Energy and Sustainability

Solid Waste Services | Municipality of Anchorage

Photo: Johanna Grasso





## Municipality of Anchorage Climate Action Strategy

A Strategy for Good Stewardship, Good Management, and Effective Preparation for an Efficient and Self-Sufficient City

The Climate Action Plan launches us toward our key goals:

- Accelerate Our Economy**  
Reduce costs and increase jobs
- Steward Our Resources**  
Take care of the place we live
- Prepare Our City**  
Build a ready and resilient city
- Engage Our Residents**  
Involve all Anchorage residents in taking action

[www.muni.org/climateactionplan](http://www.muni.org/climateactionplan)



UNIVERSITY  
of ALASKA  
*Many Traditions One Alaska*



# Changing Climate in Anchorage

## Climate change boosts risk of extreme wildfires

December 16, 2016



Jeff Richardson  
907-474-6264

University of Alaska Fairbanks scientists are presenting their work at the American Geophysical Union's fall meeting in San Francisco this week. Here are some highlights of their research, as shared at the world's largest Earth and space science meeting.

A newly published report concludes that climate change is increasing the risk of extreme wildfires.



HEAT: COPING WITH A WARMING WORLD

## Gulf Of Alaska Cod Are Disappearing. Blame 'The Blob'

July 31, 2018 - 10:24 AM ET  
Heard on All Things Considered

ANNIE FEIDT

FROM 



Arctic

## Forget snowfall -- winter rain becoming new normal in Alaska and Arctic

Author: Yereth Rosen | Arctic Updated: May 31, 2016 Published January 28, 2014

Energy & Environment

## Tick, tick, tick: Alaska braces for invading parasites



EW E - In this updated file photo provided by the U.S. Centers for Disease Control and Prevention (CDC), a black-legged tick is shown on a green leaf.

Mat-Su

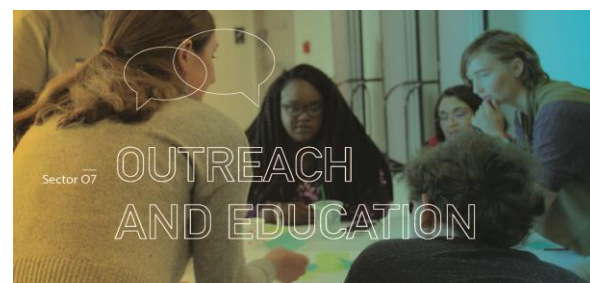
## Beetle damage skyrockets to nearly a million acres in Southcentral Alaska

Author: Zaz Hollander Updated: October 2 Published October 1



Spruce bark beetle-killed trees stand in the boreal forest along Knik-Goose Bay Road on June 5. (Loren Holmes / ADN)

Buy This Photo



**ANCHORAGE**  
Climate Action Plan

# Climate Action Plan Implementation

**Mayor's Resilience Sub-Cabinet**



**Anchorage Climate Action Council**



# Climate Action Plan Student Engagement



## Polaris Submitted 25 Resolutions and presented to the Assembly

## Chugiak High School Submitted dozens of comments during the Public Comment Period

# What is ASD's strategy on climate action?

- A. Think inside the box
- B. Think outside the box
- C. What's a box?
- D. All of the above



# BUILDINGS + ENERGY

**GOAL:** Optimize energy use in MOA facilities to save energy and money and work with private residential and commercial building owners to support safe, healthy, and affordable buildings.

- Improve energy efficiency in Municipally owned buildings
- Increase opportunities for residents and businesses to implement clean energy technology
  - Strengthen building energy standards
  - Provide financing opportunities
  - Offer incentives
  - Reduce barriers

*1C: Implement energy performance tracking and an annual reporting program for buildings over 10,000 square feet, starting with municipal buildings.*



## BUILDINGS + ENERGY

## Improve energy efficiency in ASD buildings

# Annual Energy Costs

Electric: \$10.8M

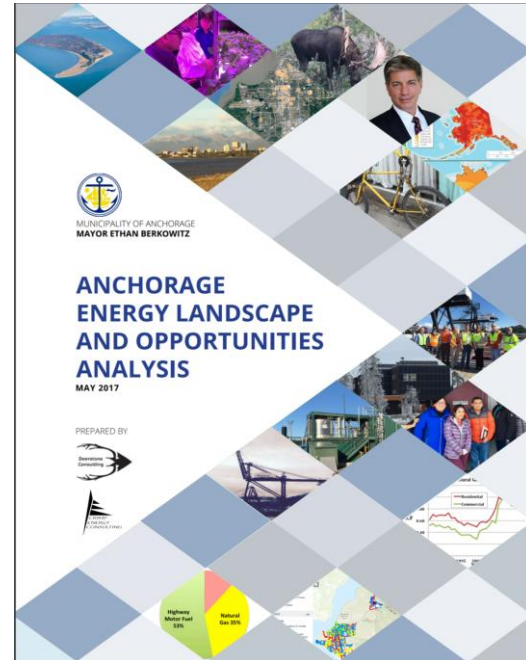
Gas: \$4.6M

Total: >\$15M or ~\$2/ sf

ASD could save approximately \$3M in energy and O&M costs per year through investment of approximately \$21M\*

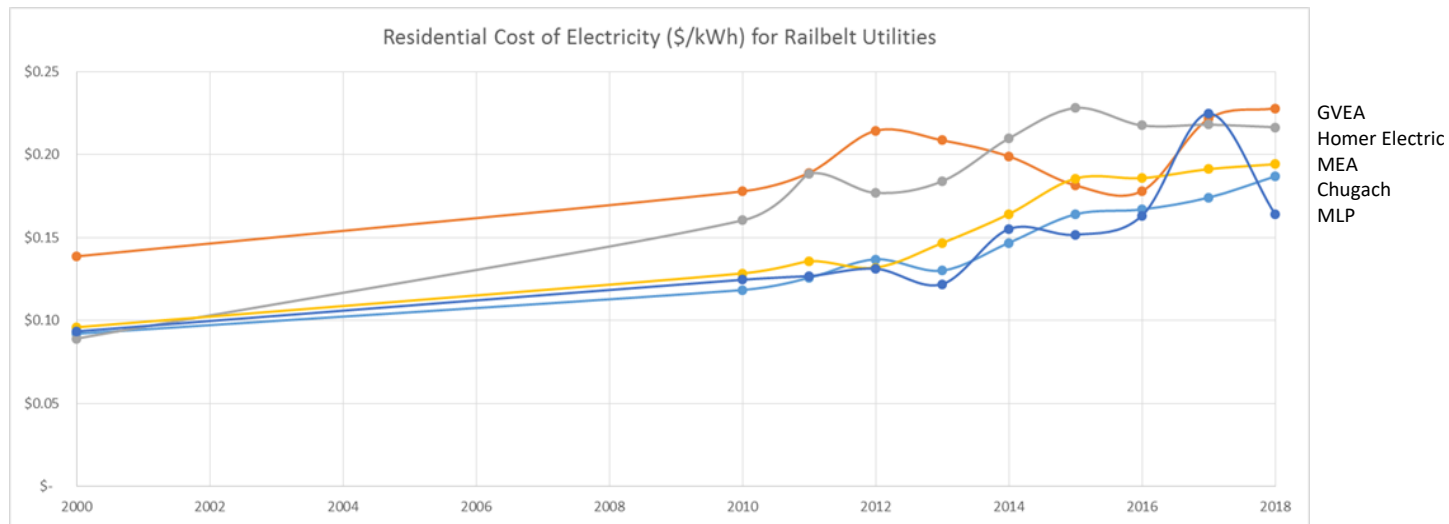
\*Assumptions:

1. Simple payback for energy efficiency upgrades is 7 years
2. 20% of ASD facilities have already received an energy upgrade



# BUILDINGS + ENERGY

## Energy in ASD buildings



Improve energy efficiency in ASD buildings

## What is ASD Doing?

- Monitoring Energy Use
- Replacing Lighting
- Upgrading boilers to high efficiency condensing boilers
- Converting to VFDs
- Upgrading refrigeration



## Improve energy efficiency in ASD buildings

### **What more could ASD do?**

- Continue energy efficiency upgrades as funding allows
- Re-invest energy savings into more efficiency upgrades
- New facilities with energy efficient design
- Reduce Vampire Loads - power save mode on electronics
- Create dashboards with real-time feedback / energy competitions between schools
- Ensure energy use info gets to the right people

### **What more could the Assembly do?**


- Continue to support bonds for energy efficiency improvements
- Work with ASD finance and facilities managers to determine whether loan products are a good fit for energy upgrades - traditional loans, ESCOs, or public financing



# BUILDINGS + ENERGY

## Renewable energy in ASD buildings

**KIDWIND CHALLENGE**



Coach training:  
Jan 11, 2020  
Anchorage, AK

FREE competition:  
March 18, 2020  
Anchorage, AK

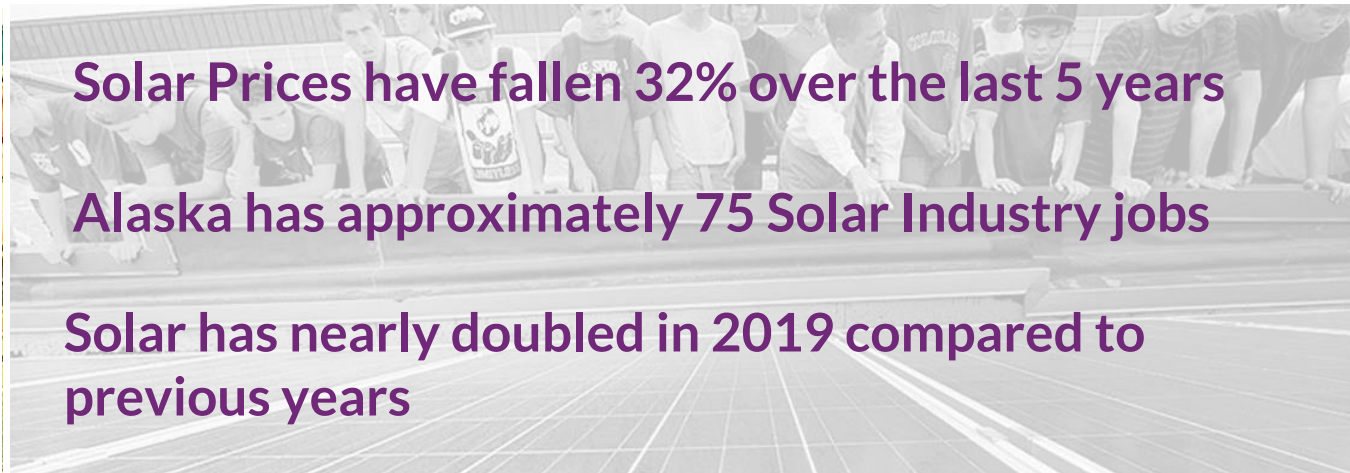
Kidwind Challenge, REAP



Begich Middle School Wind Turbine

# BUILDINGS + ENERGY

## Solar energy in ASD buildings





# LAND USE + TRANSPORTATION

**GOAL:** Improve walkability and connect neighborhoods that employ mixed-use development and diverse transportation options.

- Housing infill and redevelopment to minimize car travel and increase community resilience
- Increase use of public transit and non-motorized transportation
- Electrifying vehicle fleets and promote energy efficient vehicles

*6C: Promote the reduced fare program on People Mover and expand youth (under 18) ride free.*





# LAND USE + TRANSPORTATION

## Upgrade bus fleet

Volkswagen Settlement Funds: School bus  
replacement - \$3.4M

March 2019: **6 buses**

September 2019: ?

80% NOx Reduction







# LAND USE + TRANSPORTATION



Electric Buses in the future?

2018 Pilot Study: Solid Waste Services and People Mover



# CONSUMPTION + SOLID WASTE

**GOAL:** Develop an efficient and innovative solid waste management system that promotes sustainable consumption, recycling, and waste reduction.

- Increase recycling, composting, and other diversion of waste to increase the life of the landfill
- Capture more potential energy in collected refuse (e.g., organics digestion, mass burn, and landfill gas to energy expansion)
- Expand diversion opportunities by building a new Central Transfer Station

*9A: Generate and enact policy (internal and external to MOA) to increase diversion, including policies that look 'upstream' like Extended Producer Responsibility.*

Years of Landfill Life Remaining

[Click to learn more...](#)



See what happens if we reduce waste to the landfill by...





# CONSUMPTION + SOLID WASTE

## What is ASD Doing?

- Partnering with Solid Waste Services and Alaska Waste to fund a Recycling Position
  - Food scrap collections at high and middle schools
  - Increase participation in the green schools program
- Introducing reusable trays
- Offers recycling at 5 schools:
  - West High
  - East High
  - Service High
  - Bartlett High



Assembly Proclamation naming Nov. 15  
Anchorage Recycles Day



# HEALTH + EMERGENCY PREPAREDNESS

**GOAL:** Ensure preparedness and adaptability at household, neighborhood, and municipal levels to equitably improve health and safety.

- Improve household wildfire mitigation
- Identify and develop key secondary access routes for emergency response and evacuation in the Hillside, Girdwood, Eagle River/Chugiak
- Improve language access to all residents on climate change, natural hazards, and emergency preparedness

*14D: Expand visibility of the Anchorage Air Quality Index including particulate matter and pollen counts so that the public is aware of bad air quality days.*





# FOOD SYSTEMS

GOAL: Support local, sustainable food systems.

- Support school and community gardens and other opportunities to expand community growing
- Encourage farmers markets to accept payment through food assistance programs
- Conduct a commercial organic waste collection pilot

*19C: Analyze existing Municipality of Anchorage purchasing and procurement policies and explore creating a preference for purchasing locally grown (i.e. Alaska Grown) foods.*



Photo Credit: Michelle Fehribach



# URBAN FOREST + WATERSHEDS

**GOAL:** Support healthy ecosystems that increase recreational opportunities, clean air and water, and habitat for wildlife.

- Develop an urban forest management plan
- Create a stormwater utility
- Continue to support APU efforts to monitor Eklutna Watershed

*22F: Promote and expand weed pulls, tree plantings, spruce beetle identification and management, wildfire mitigation, and other educational activities that promote stewardship among the public, businesses, and homeowners.*





# OUTREACH + EDUCATION

**GOAL:** Inform, engage, and empower Anchorage residents and leadership to find community-led climate solutions that support a sustainable future.

- Increase outreach methods for participation in planning and new programs
- Develop an online Anchorage climate action webpage and other outreach materials
- Encourage education about climate change, energy, and the development of career and technical education programs around clean energy jobs

*28C: Encourage education about climate change, energy use, and outdoor/natural sciences through K-12, post-secondary, continuing adult education, and extra-curricular education.*

# OUTREACH + EDUCATION

28C Cont'd: (1) conduct an inventory of existing curriculum and (2) identify, incentivize, and provide materials and resources to educators







## **Coffman Cove Biomass Heated Greenhouse**

Economic Development

STEM Education

Healthy Lifestyle



# How Can We Collaborate?

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744-1815

Photo: Johanna Grasso