Item 8

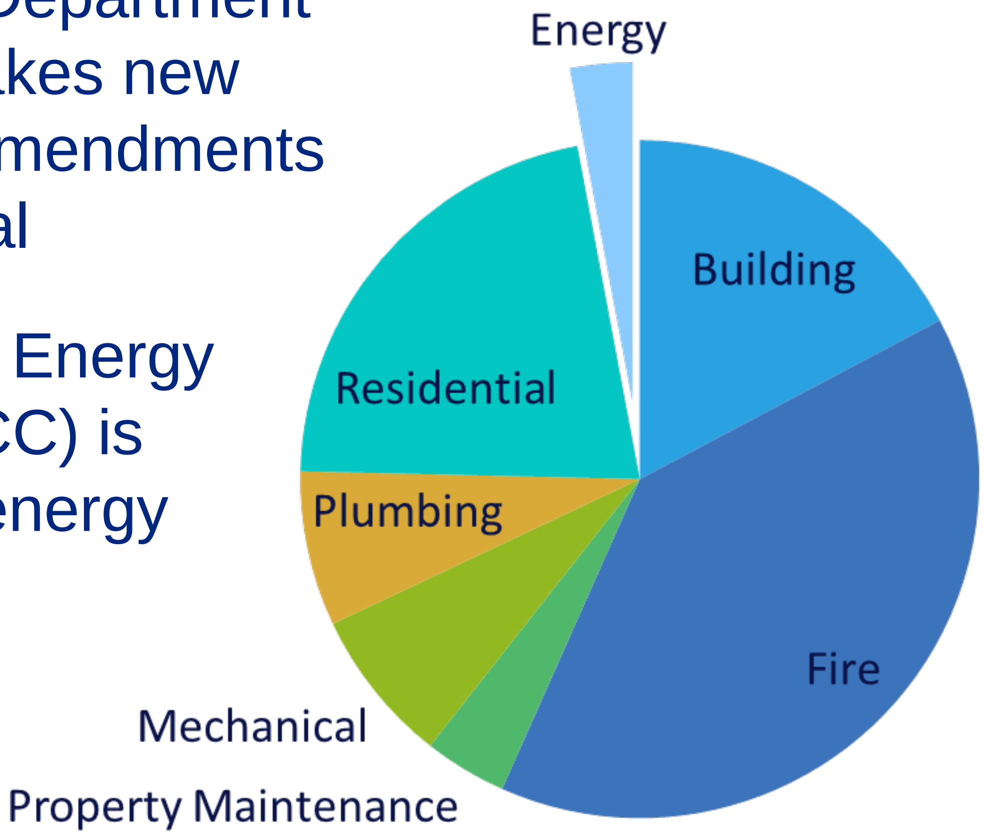
Solar Ready Proposed Amendments to Energy Code

Resource Management Commission

May 16, 2017

Regulations

- Development Services Department (DSD) enforces code, takes new codes and associated amendments through Council approval
- For Austin, International Energy Conservation Code (IECC) is the governing code for energy



Energy Code & Solar Ready Amendment

Texas House Bill 1736, mandated adoption of the 2015 International Energy Conservation Code (IECC) by all local jurisdictions

- 2015 IECC (with local amendments) became effective in Austin 9/1/16
- Proposed Solar Ready Amendment is modeled after *Appendix RB: Solar Ready Provisions* of the IECC
- Solar Ready Amendment is compatible with either the Uniform Plumbing Code or the International Plumbing Code

Energy Code & Solar Ready Amendment

TIMELINE

Apr 2016
Solar Ready Amendment Initiated by RMC

May 2016
Solar Ready Stakeholder Engagement

Jun 2016
Initial Solar Ready Drafts approved
6/20/16 EUC
6/21/16 RMC

Jun 2016
Energy Code Passed by Council 6/23/16

Sep 2016
Energy Code Effective
9/1/16

Feb 2017
Item from Council - staff to solicit additional feedback on Solar Ready from relevant Boards & Commissions 2/2/2017

April 2017
Additional Solar Ready Stakeholder Engagement
4/17/17 EUC
4/18/17 RMC

April 2017
International Residential Building Code passed by Council

Legend: EUC - Electric Utility Commission RMC - Resource Management Commission

What Does "Solar Ready" Do?

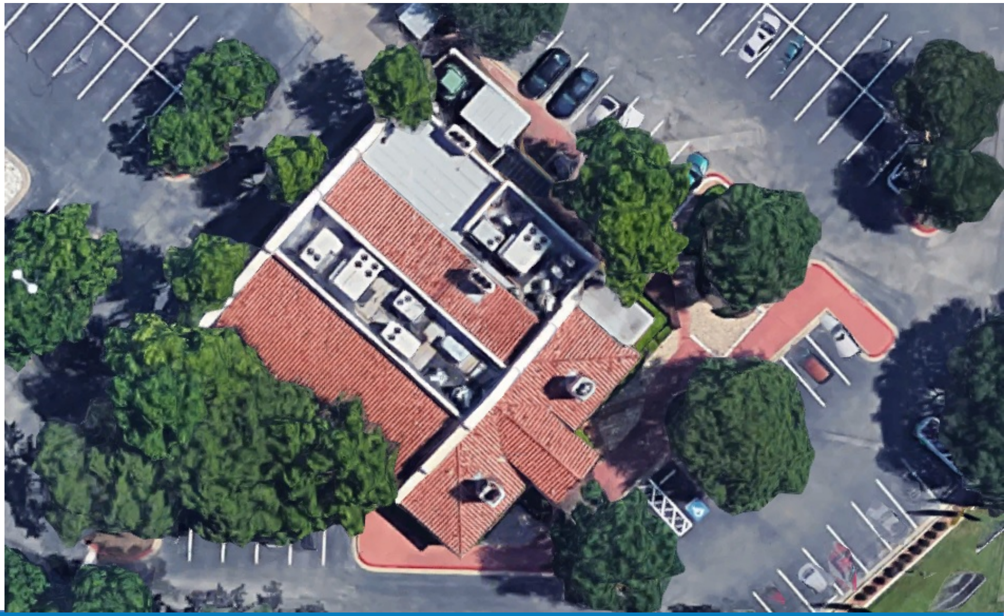
New Commercial & Residential Construction

- Amends 2015 International Energy Conservation Code
- Designate portion of roof as "Solar Ready Zone"
  - Free from obstructions, for example:

    vents, mechanical equipment
  - Appropriate orientation of roof
  - Reserve electric panel space
  - Supports solar goals
- Allows for exceptions, for example…
  - Downtown Network, shading, small roofs, orientation, on-site renewable energy, rooftop parking, skylights, heliports
- Does **not** require solar or conduit installation

Constrained Commercial Buildings

Equipment placement and space make these sites exceptions to compliance



Commercial Solar Ready

The vast majority of new commercial buildings (up to 95%) will meet solar ready requirements as designed currently

Mechanical equipment and vent clustering to free up roof space

South facing roofs (optimal for solar production)

Bunched vents permit solar installation

Widely spaced vents Limit solar potential

Affordable Housing

Simpler roof designs make accommodating solar more straightforward

80% or more of the affordable homes as designed and built may already be solar ready

Cost Implications of Solar Ready

Commercial

- Requires consideration in design
- Challenge when rooftop is occupied by features integral to code or occupancy
- Material impact to most projects will be negligible
- Exceptions

Cost Implications - Residential

Affordable Housing

- ≤ $50 in review and administrative expenses for houses already compliant
- $100-500 for houses that require adjustment of roof penetrations

Other Housing

- Similar review and administrative expenses for houses already compliant
- Costs for houses out of compliance highly variable

Exceptions

Avoided/Opportunity Costs

Putting Solar on a house not built Solar Ready…

- Venting
  - Not currently moving vents, work around them
  - Impacts size of installation, aesthetics
  - Too many vents = no solar
- Electric panel space

  $300 - 1,400
  for new panel
  and installation

Summary

Solar Ready Amendment…

- Designates portion of roof as a “Solar Ready Zone”
- Reserves electric panel space
- Supports Council-approved solar goals
- Allows for exceptions

Most new buildings already comply as designed

There is a cost

- Limited for commercial
- Residential
  - Affordable ≤ $50 admin/review $100 - 500 to move vents
  - Other Residential ≤ $50 admin/review - difficult to quantify other costs if not compliant at plan review

Solar Ready Timeline – Next Steps

Apr 2017

Additional Board/Commission Review

4/24/17 Austin Energy Utility Oversight Committee
4/25/17 Mechanical Plumbing & Solar
4/26/17 Building & Fire Code Board of Appeals

June 2017

Development Services Department Brings to Council

June 2017 – Sep 2017

Stakeholder Awareness/Outreach

Aug 2017

Train Development Services Department Plan Review Staff

Oct 2017

Issue Solar Ready Guidelines

Solar Ready Effective 10/1/17

Questions?

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